Chapter 8

OTHER OPERATIONS

"In no other profession are the penalties for employing untrained personnel so appalling or so irrevocable as in the military."

Douglas MacArthur, 1933

This chapter addresses several combat operations that cavalry may be required to perform. These operations are considered a routine part of the combat operations discussed in preceding chapters; however, they are no less important.

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Section I. Retrograde Operations

A retrograde operation is an organized movement to the rear or away from the enemy. The decision to conduct a retrograde operation may be forced by the enemy or made voluntarily. The basic reason for conducting a retrograde operation is to

improve a tactical situation or to prevent a worse one from occurring. Other reasons for conducting a retrograde operation are listed below.

- To gain time.
- To preserve forces.
- To avoid combat under undesirable conditions.
- To draw the enemy into an unfavorable position,
- To reposition forces on the battlefield.
- To shorten lines of communication.
- To permit the withdrawal of a force for use elsewhere.

REQUIREMENTS OF RETROGRADE OPERATIONS

Most retrograde operations are difficult and inherently risky. Retrograde operations are characterized by emphasis on the following requirements during planning and execution:

- Maintain morale and leadership.
- Preserve freedom to maneuver.
- Conserve combat power.
- Slow the enemy's rate of advance.
- Ensure unity of effort.

These requirements take on varying degrees of significance depending on the type of retrograde mission performed.

Maintain Morale and Leadership

Maintenance of morale among soldiers is critical during retrograde operations. Soldiers can quickly perceive movement to the rear in the face of the enemy as defeat or abandonment. Rumors can start easily and must be suppressed. Leaders must be physically present, display confidence in the plan, be in control on the battlefield, and thoroughly brief subordinates on the plan and their role. Particular attention must be paid to evacuation of casualties. Soldiers will not stay long on the battlefield if they think they will be left to the enemy.

Preserve Freedom to Maneuver

When executing these operations, cavalry must retain its ability to maneuver. While a portion of the unit may become decisively engaged, the commander cannot allow the entire unit to do so. He must be prepared to free squadrons or troops that can no longer extricate themselves.

Conserve Combat Power

Frequently, the purpose of a retrograde is to conserve combat power for use elsewhere. Commanders must strike a balance between caution in preserving the force and risk-taking to delay the attacker. IPB provides analysis to determine where opportunities to strike the enemy exist and what the associated risks are. The commander then structures the battlefield to reduce risk to an acceptable level.

Slow the Enemy's Rate of Advance

This task is inherent when in contact. A squadron will normally be delaying the attack of a regiment. Threat forces train to execute battle drills rapidly from platoon to regiment level with minimum command and control effort. The threat can quickly move from march formations to attack formations and back again. The delaying or withdrawing force must do more than just cause the enemy to initiate this process. Early destruction of reconnaissance elements is critical to blind the enemy commander. The enemy forward security element and advance guard battalion must be fought and defeated to achieve an effective delay. The commander does this by structuring the battlefield to take advantage of terrain that affords opportunities to mass destructive fires on the enemy. Effective integration of obstacles and fires will disrupt, turn, fix, or block the enemy's ability to advance.

Ensure Unity of Effort

The commander develops a simple plan. Retrograde operations are characterized by fluid, rapidly changing situations. A series of independent small unit actions occur simultaneously across the front. Subordinate commanders must have freedom of action. Regimental and squadron commanders ensure unity of effort through a clear intent, graphic control measures that are not overly restrictive, and personal presence at the decisive point.

TYPES OF RETROGRADE OPERATIONS

There are three types of retrograde operations: delay, withdrawal, and retirement. Figure 8-1 illustrates the relationships between them.

OPERATION	INTENT	ENEMY CONTACT
Delay	Trade space for time Economy of force	In contact Avoid decisive engagement
Withdrawal	Disengage force Free unit for use elsewhere	In contact Break contact
Retirement	Move a force away from the enemy	Not in contact

Figure 8-1. Types of retrograde operations.

Delay is the retrograde operation most frequently assigned to cavalry units, although the squadron or regiment may participate in a withdrawal or retirement as part of a larger force. During withdrawal and retirement, cavalry units may be performing a rear guard mission to protect the force. A withdrawal may conclude a security mission during battle handover to the main body forces.

Withdrawal or retirement may be conducted internally by a cavalry unit. In such cases, the mission normally covers a relatively short distance. This can occur as part of screen or guard missions as squadrons or troops displace to subsequent positions.

Security is paramount to prevent the enemy from detecting the movement of the unit. Counterreconnaissance is vital. As the force moves, rear security is maintained to prevent surprise from a pursuing enemy. Security is inherent in a delay. In other retrograde operations, it must be planned.

Deception is necessary to hide that a retrograde is taking place. This is achieved by maintaining normal patterns of physical and electronic activity. The nature of the operation is not discussed on an unsecure radio net. Additionally, the enemy can be distracted by dummy positions, decoys, feints, or demonstrations. OPSEC and security are aspects of successful deception.

For a withdrawal and retirement, limited visibility is used, if possible, to mask the movement of the squadrons or troops.

Delay

Delay is a retrograde operation normally performed as part of a defensive battle. It is usually conducted when the commander needs time to concentrate or withdraw forces, to establish defenses in greater depth, to economize in an area, or to complete offensive actions elsewhere. In the delay, the destruction of the enemy force is secondary to slowing his advance. The delay is normally a series of defensive

actions over successive positions in depth that trade the enemy space for time while retaining freedom of action.

The delay may be conducted under the following circumstances:

- During reconnaissance after making contact with a large attacking enemy force.
- During a guard mission for a moving or stationary force.
- When the assigned sector is too wide for an effective defense in sector.
- As an economy of force for a larger force when inadequate combat power is available for a defense.

The higher commander can direct a delay as part of the intent of an operation. As such, the delay may proceed despite apparent success achieved against the enemy and the natural desire to retain terrain. Division cavalry normally requires reinforcement to perform a delay.

The armored cavalry regiment may perform delay operations during the conduct of covering force or in an economy-of-force role for the corps. Within the concept of the regimental commander, some squadrons may delay while others perform other missions.

There are two basic types of delay that differ largely in the intent of the assigning commander and the degree of decisive engagement that may be required:

- Delay in sector.
- Delay forward of a specified line for a specified time or event.

A delay in sector mission requires a unit to slow and defeat as much of the enemy as possible without sacrificing tactical integrity. This is the mission normally assigned to the regiment or squadron.

A delay forward of a specified line for a specified time or event entails more risk. The unit is required to prevent enemy forces from reaching the specified area or penetrating a specified line earlier than the specified time or event, regardless of the cost. Decisive engagement may be required.

While a delay is similar to a defense in sector, it is characterized by requirements that make this mission extremely demanding. The unit must repeatedly fight the enemy, disengage a part of the force, conduct internal battle handover, and move rapidly to reposition and resume the fight. The commander finds himself performing conflicting tasks in a fast-paced environment, which places a premium on decentralized execution.

PLANNING CONSIDERATIONS

The delay is planned like a defense in sector. Execution reflects the different intent of the mission. When the regiment receives a delay mission, the regimental commander normally assigns each of the ground squadrons a sector. Generally, the squadrons are abreast. The commander normally retains the attack helicopter troops of the aviation squadron as his reserve. The regiment directs the squadrons during the delay and coordinates combat support and combat service support assets. The commander decides when and where to commit the reserve.

In any case, the burden of fighting the delay falls upon the squadron. The squadron must fight hard and move fast while dictating the pace of the battle to the enemy. A delay cannot revert to a reactive battle. Commanders at all levels must keep the operation on track. The situation often changes faster than status reports to the command post or TOC can convey. Commanders position themselves well forward to personally see the battlefield, make immediate decisions, and sustain subordinates. Commanders anticipate events by assessing the intent of the enemy commander and evaluating the actions required to thwart his efforts. Accurate reporting is emphasized. Flank coordination is enforced.

Integration of air cavalry is crucial to successful delay operations. In division cavalry, air cavalry troops can fill gaps within the squadron, provide depth during the movement of ground troops, and help the commander see the entire battlefield. In regimental cavalry, the aviation squadron provides a fourth maneuver squadron. During delay operations, the aviation squadron may be assigned its own sector (with augmentation), may operate in conjunction with the ground squadrons under control of the aviation squadron commander, or may have its air troops placed under operational control of ground squadrons. Additionally, the attack troops of the aviation squadron provide the regiment with a highly mobile reserve force. This force may be required to support the armored cavalry squadron disengagement.

The squadron must maintain a mobility advantage over the enemy to accomplish the frequent repositioning required. Mobility advantage is tactical mobility greater than the enemy. The larger this advantage becomes, the greater the chance for success and ability to dictate terms of the battle to the enemy. Mobility advantage is achieved by enhancing the mobility of the squadron and degrading the mobility of the enemy.

Squadron mobility is enhanced by using every advantage of the defender. Knowledge of the terrain, preparation of positions, reconnaissance of routes, rehearsals, and improving existing routes all contribute to increased mobility.

Degrading the enemy's mobility entails using the following methods:

- Effectively using terrain to control high-speed avenues of approach.
- Emplacing obstacles and barriers that impede the enemy's advance.

- Using dynamic obstacles.
- Identifying their command and control early and destroying it.
- Disrupting communications.

The scheme of maneuver will normally reflect freedom of action for subordinate commanders. Control measures must also allow the squadron to exert the degree of control necessary, ensure unity of effort, and order changes to the plan when required. The squadron delays by fighting troops and platoons through a series of battle positions or phase lines. Troops and platoons fight the position, disengage, and bound rapidly to subsequent positions. They do not fight a running delay to the next position. There are two basic methods of executing the delay:

- Delay from successive positions or phase lines.
- Delay from alternate positions or phase lines.

Delay from successive positions or phase lines is normally used when the squadron is committed on a wide front (see Figure 8-2). All subordinate units are committed on each of the delay battle positions or across the sector on the same phase line. The delay from one phase line to the next is dictated by the mission and is normally staggered.

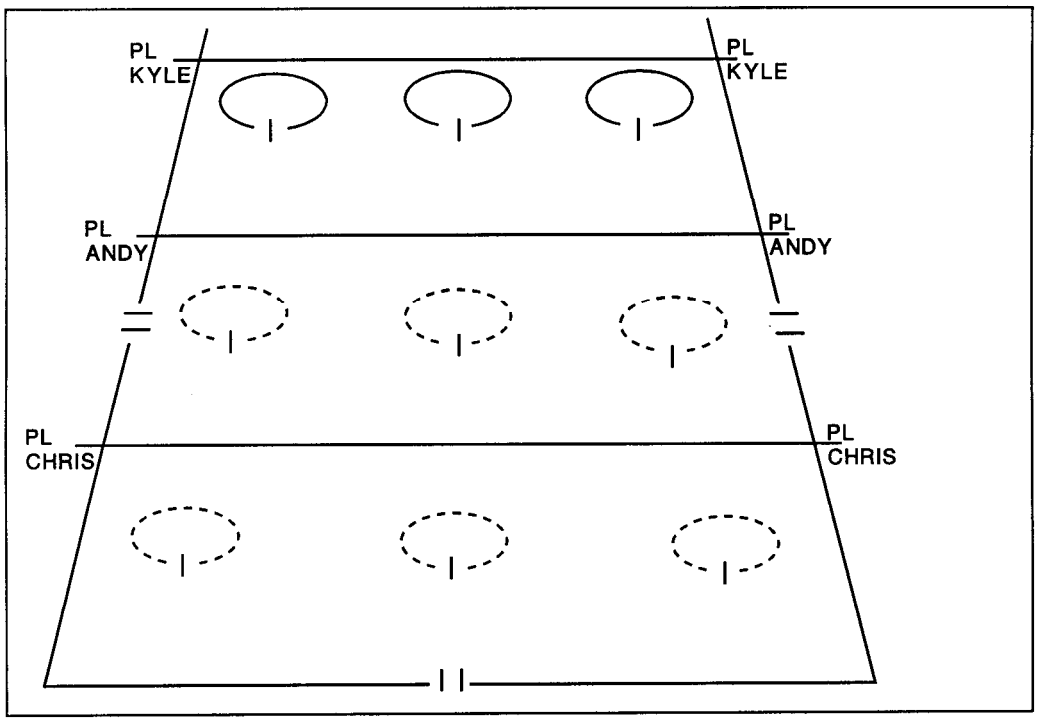


Figure 8-2. Delay from successive positions.

When operating on a narrower front, the commander may elect to delay from alternate positions or phase lines (see Figure 8-3). When using this technique, the unit is divided into at least two elements. The first element occupies the initial battle

position or phase line and engages the enemy. The second element occupies and improves the second delay position or phase line.

Delay methods are summarized in Figure 8-4.

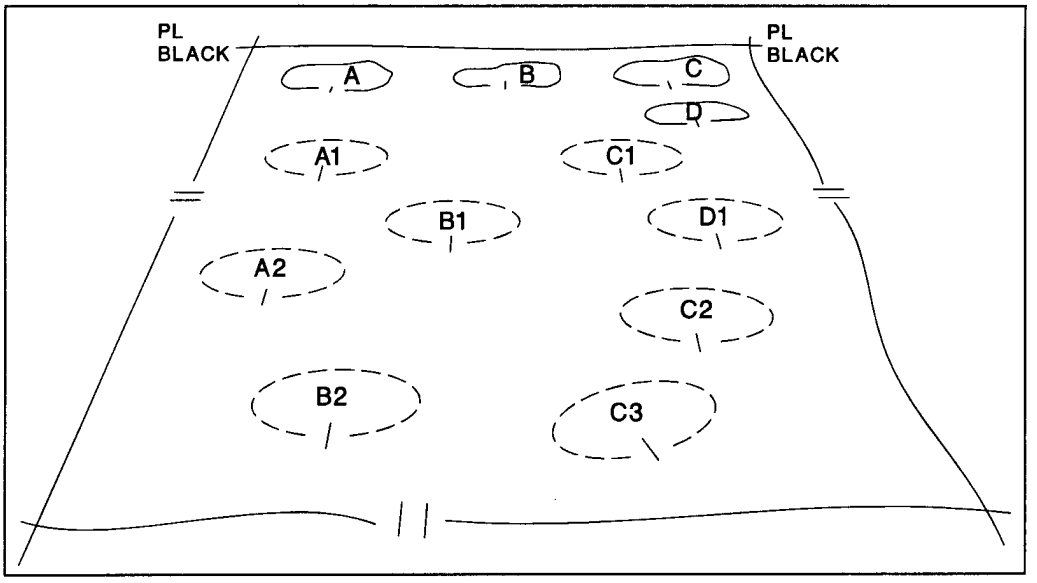


Figure 8-3. Delay from alternate positions.

METHOD OF DELAY	USE IS FAVORABLE WHEN...	ADVANTAGES	DISADVANTAGES
Delay from successive positions	Sector is wide. Forces available do not allow split.	Increased ability to mass fires.	Limited depth to the delay positions. Less time available to prepare each position. Less flexible.
Delay from alternate positions	Sector is narrow. Forces are adequate for split positions.	Allows positioning in depth. Allows more time for equipment and soldier maintenance. Increased flexibility.	Requires continuous coordination. Requires passage of lines.

Figure 8-4. Summary of delay methods.

COMBAT SUPPORT AND COMBAT SERVICE SUPPORT IN DELAY OPERATIONS

During a delay, combat support units may be at a premium. Synchronizing their efforts is critical to mission success. IPB helps the commander determine how to structure the battlefield. Fire support, engineer support, and electronic warfare support are integrated with fires and maneuver of the squadrons to shape the battlefield for success. Division cavalry relies on augmentation from division combat support assets. The degree of augmentation received will be largely determined by METT-T factors, and the division commander's intent. Regimental cavalry has organic combat support assets (engineer, electronic warfare, air defense artillery, and NBC at regiment, artillery in each squadron). In addition, the regiment will normally be augmented with additional combat support assets from corps, again depending on METT-T factors and the corps commander's intent. The regimental commander employs these combat support assets to best support his intent. The squadron commanders integrate and synchronize their organic assets and the combat support assets provided by the regimental commander.

The fluid nature of the delay requires combat support units to monitor the situation closely and remain mobile. Combat service support assets and command posts also remain mobile. Passage of lines through a force to the rear may begin early for combat service support and be staggered throughout the battle. Units massing at passage points late in the battle must not occur. Massing provides the enemy a lucrative target and can quickly lead to a breakdown in command and control.

Withdrawal

Commanders conduct withdrawals to extract subordinate units from combat, adjust defensive positions, or relocate the entire force. A withdrawal occurs when a force in contact with the enemy frees itself for a new mission. This can be to continue the defense in depth or to perform a different mission. There are two types of withdrawal:

- Under enemy pressure. The unit depends on fire and movement to break contact with an attacking enemy force, and then withdraws.
- Not under enemy pressure. The unit depends on speed of execution and deception. If the unit is not under attack then the withdrawal is not under pressure.

Preferably, the withdrawal is not under heavy pressure. Heavy pressure may force the unit to transition into a delay.

Withdrawals may be assisted or unassisted. An assisted withdrawal uses a security force provided by another headquarters to assist in breaking contact and to provide overmatching fires. The withdrawing unit may then disengage and conduct a rearward passage of lines. This is the case when conducting a battle handover. The squadron or regiment may be tasked to provide security for other withdrawing units. In an unassisted withdrawal, the unit provides its own security.

A withdrawal is planned in the same manner as a delay, particularly if the commander expects it to occur under pressure. It is accomplished in three overlapping phases:

- Preparatory.
- Disengagement.
- Security.

PREPARATORY PHASE

Planning, reconnaissance, and quartering party actions are initiated. Critical planning concerns are forming the security force, designating subsequent positions or assembly areas, and designating withdrawal routes (see Figure 8-5). Leaders conduct reconnaissance of routes and subsequent positions. Movement can begin early for trains and command posts.

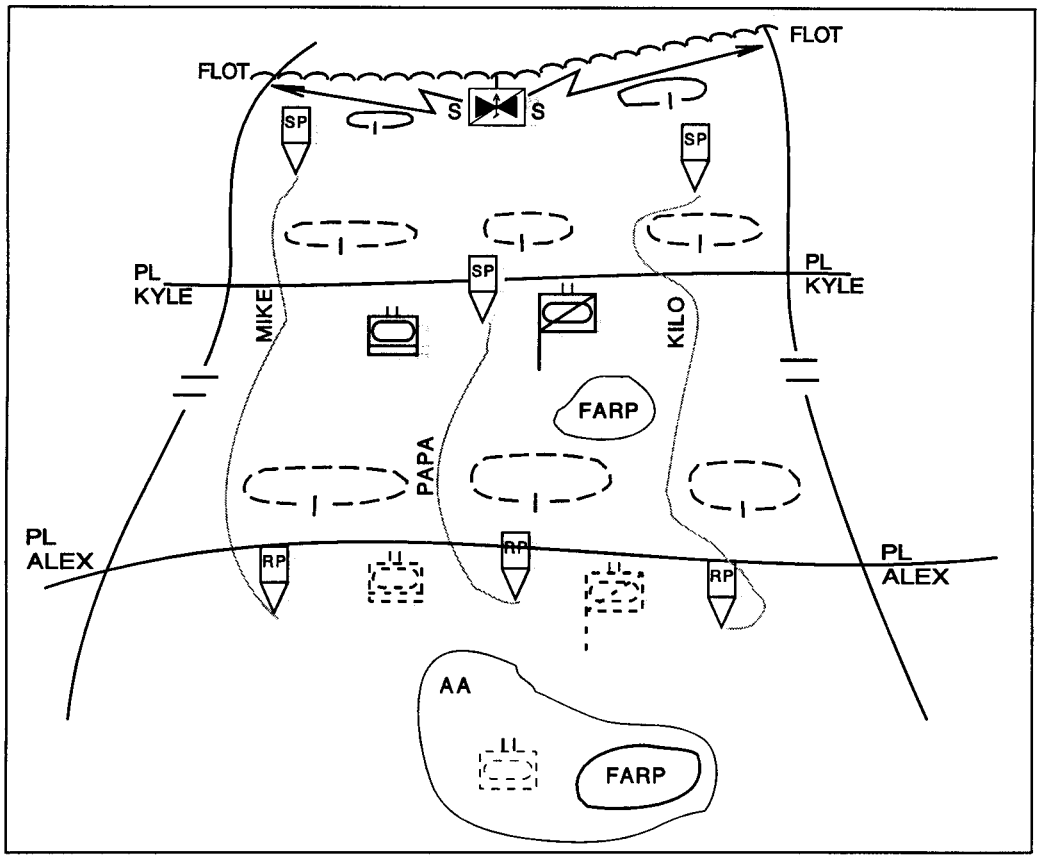


Figure 8-5. Planning withdrawal.

DISENGAGEMENT PHASE

Disengagement is breaking contact with the enemy and moving to a point where the enemy can neither observe nor engage the unit by direct fire. Subordinate elements of the withdrawing unit break contact and move to the rear. Combat support, combat service support, and reserve elements normally move first (see Figure 8-6). Fire support assets cannot displace out of supporting range. All units move on assigned routes within designated time windows to preclude congestion. Movement must be rapid since the detachment left in contact does not possess sufficient combat power to conduct a defense against an attack. Use radio listening silence. Units can occupy either new positions in depth or designated assembly areas. As this movement occurs, the security force is activated.

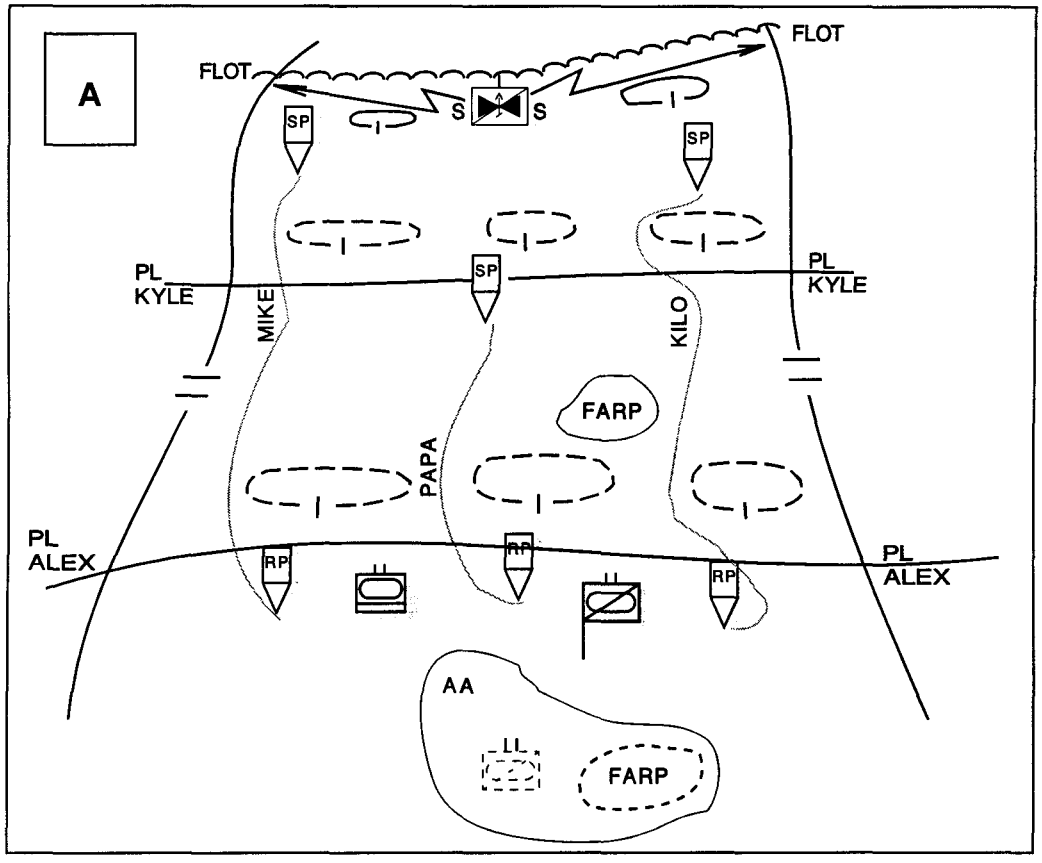


Figure 8-6. Executing withdrawal.

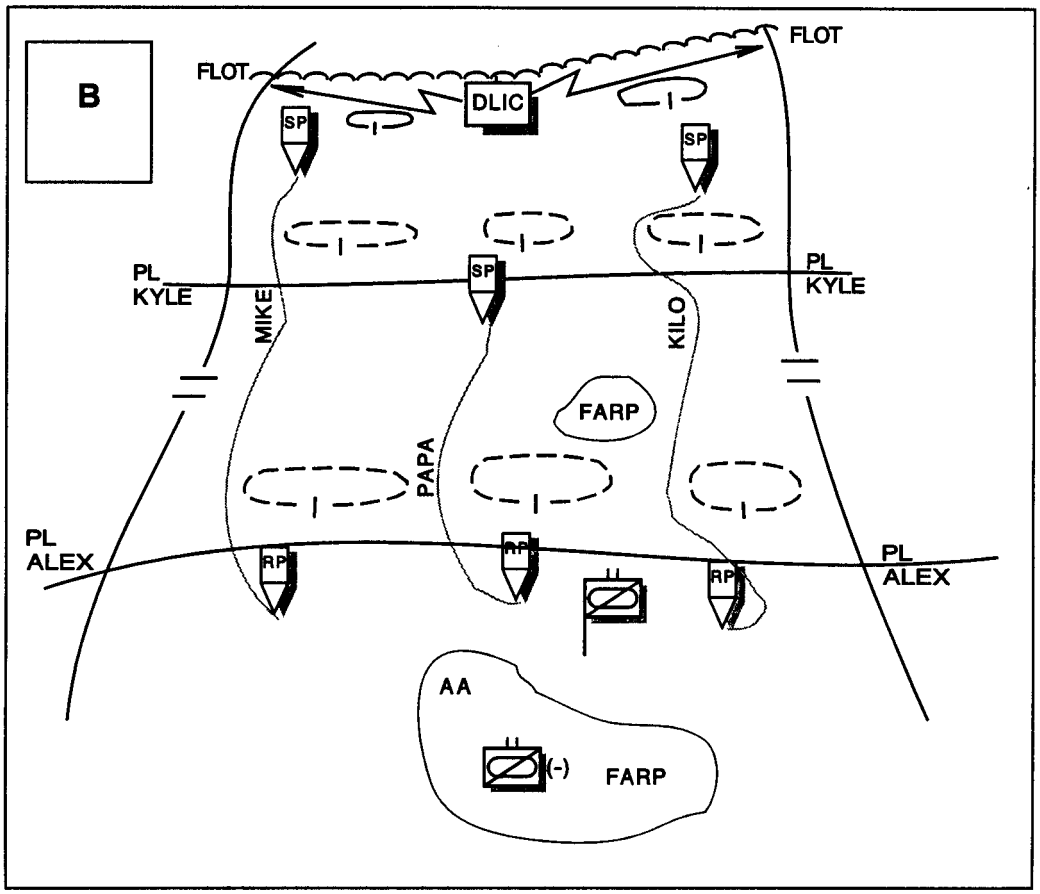


Figure 8-6. Executing withdrawal (continued).

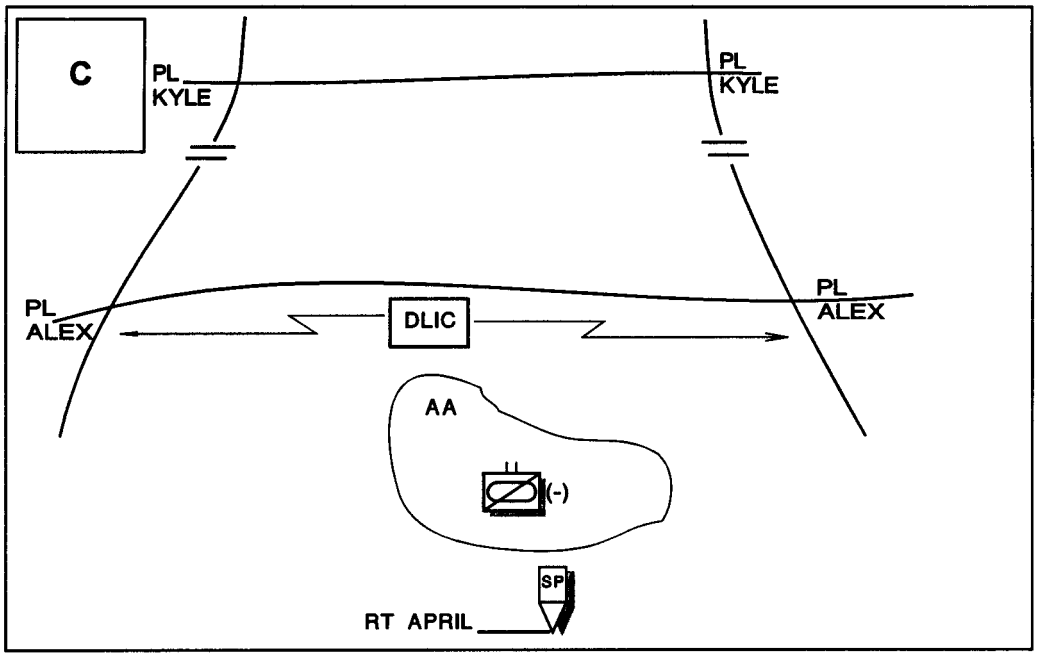


Figure 8-6. Executing withdrawal (continued).

SECURITY PHASE

In an unassisted withdrawal, the security force is formed as a detachment left in contact (DLIC). The commander determines the size and composition of the detachment. It must be able to detect, deceive, and engage the enemy on all avenues of approach with direct and indirect fires. The DLIC performs the mission like a screen. As the main body disengages, the DLIC shifts positions as necessary to accomplish its tasks. It is frequently composed of a platoon-size force from each forward troop. Mortars and other combat support and combat service support assets are part of the DLIC, as necessary. Air cavalry is included, both for deception and enhanced security. The DLIC as a composite force is normally commanded by the S3 and troop detachments by the XOs. If the greatest threat lies on a single avenue of approach, the unit on that avenue may be left in place and augmented with small security elements from other units. The DLIC assists the disengagement of other elements moving to the rear, assumes responsibility for the entire sector, and performs deception tasks as designated. When the rest of the force is set, the DLIC disengages and moves to the rear to join the main body.

Retirement

Retirements are rearward movements conducted by units not in contact. Movement to the rear is conducted in an organized fashion. For planning, considerations for the withdrawal are used. A retirement may be a continuation of a withdrawal. A detachment left in contact is not necessary since there is no contact. Movement is tactical and conducted at night or in limited visibility. Daylight movement should be conducted only if necessary or if the enemy is incapable of interfering. Contingency missions are assigned to the squadrons or troops in case the enemy makes contact. Security and speed are important considerations when planning a retirement. Commanders conducting a retirement must emphasize OPSEC during movement.

Section II. Rear Operations

The primary purposes of rear operations are to sustain the current close and deep fights and to posture the force for future operations. Successful rear operations assure freedom of maneuver and continuity of operations, including continuity of sustainment and command and control. The intent of rear operations is to protect the commander's freedom of action by preventing disruption of command and control, fire support, logistical support, and movement of reserves. Rear operations are part of the framework of both offensive and defensive operations. The rear area extends from the subordinate unit's rear boundaries to the unit's own rear boundary. The corps and division normally have a designated rear area. The regiment may have a rear area when performing missions as an economy of force.

REAR AREA THREAT

The threat emphasizes integrated operations throughout the depth of friendly force formations. They conduct deep operations to disrupt the synchronization of operations and sustainment efforts. Additionally, the threat attempts to seize or maintain the initiative while preventing the friendly force from doing so. To accomplish these objectives, the threat will target key rear area facilities such as the ones listed below.

- Nuclear weapon storage sites and delivery systems.
- Key command and control elements.
- ADA sites.
- Airfields.
- Critical support facilities.
- Main supply routes.

The threat will employ tactics ranging through the full spectrum of activity (see Figure 8-7).

THREAT	ACTIVITY
Hostile Indigenous Population	Espionage, Theft, Limited Sabotage
Enemy Controlled Agents	Espionage, Interdiction, Subversion
Sabotage by Enemy Sympathizers	Arson, Assassination, Sabotage, Theft, Political Demonstrations
Terrorist Organizations	Terrorist Acts
Diversionary and Sabotage Operations by Unconventional Forces	SPETSNAZ; Attack Specific High-Priority Targets
Raid, Ambush, and Reconnaissance Operations by Combat Units	Penetrating Reconnaissance Units, Raid, Ambush, Stay Behind
Special or Unconventional Warfare Missions	Small Unit Heliborne/Airborne Operations; Reconnaissance, Raids, Sabotage, Attack High-Value Targets
Heliborne Operations	Company/Battalion Size; Terrain Oriented, Ambushes, Raids, Rear Area Threat Activities
Airborne Operations	Battalion to Division Size Forces; Terrain or Specific Targets, Await Linkup with Ground Forces
Amphibious Operations	Small Unit/Battalion to Division Size; Terrain/Specific Objective, Raid, Sabotage, Reconnaissance
Ground Force Deliberate Operations	MBA Penetrations, OMG, Exploitation, Linkup with Other Forces, Regiment and Larger
Infiltration Operations	Battalion or Larger Unit Infiltration by Small Elements

Figure 8-7. Rear area threat activities.

These threat activities will not occur in any specified order. Multiple threats of various kinds may occur simultaneously and may or may not be interrelated. In addition, the threat integrates tactical air, attack helicopters, long-range indirect fires, and radio electronic combat into their deep operations plans.

Three levels of response to threat activity serve as a guide for planning rear operations. Rather than focusing on the size or type of threat, these levels focus on the nature of the friendly response required to defeat the threat.

- Level I threats are those that can be defeated by base or base cluster self-defense measures.
- Level II threats are those that are beyond base or base cluster self-defense capabilities, but can be defeated by response forces.
- Level III threats are those that require the command decision to commit the tactical combat force.

FUNCTIONS OF REAR OPERATIONS

Rear operations integrate and synchronize the functions of terrain management, security, sustainment, and movement with the commander's concept of operations. The assistant division commander for support commands the division rear area. The deputy corps commander is normally the corps rear operations commander. They control the planning and execution of rear operations. Both operate through the rear command post, normally collocated with or in close proximity to the support command's command post. The rear command post has a headquarters cell, an operations cell, and a combat service support cell.

When the regiment operates with a rear area, the regimental support squadron commander is the rear area commander. Unless the regiment designates otherwise, his command post serves as the rear command post. Elements of the regimental staff may augment his staff as necessary, but the regiment normally does not have the depth to provide a full rear command post staff. However designated, the regimental rear command post is responsible for the four rear area functions.

Terrain Management

The rear command post positions those units in the rear area that have not been positioned by the G3. Once positioned, units located in the rear area become either bases or base clusters. A base is a unit or multiunit position that has a definite perimeter. A base cluster is a grouping of bases organized by mission and security requirements lacking a clearly defined perimeter. Base clusters are established due to the proximity of bases to one another and to meet the need for mutual support. Both are controlled by the rear command post for positioning, security, and movement within the rear area.

The regiment or squadron occupies an assembly area as a base while in the corps or division rear area. This frequently occurs after performing some other

mission. In this assembly area, the regiment or squadron conducts reconstitution, performs designated rear area tasks, and prepares for subsequent combat operations. The G3 frequently positions the cavalry unit based on requirements for future operations. The rear command post, in coordination with the G3, controls any subsequent movement of the regiment or squadron required by rear operations tasks or ongoing corps and division operations. See Section V for assembly area actions.

Security

Rear security assists corps and division freedom of maneuver and continuity of operations. The rear command post operations cell plans and executes rear security operations. The four components of rear security are intelligence, base and base cluster self-defense, response operations, and combined arms tactical combat force.

The operations cell performs IPB for the rear area using information from the all-source intelligence center and combat information reported by units in the rear area. As a rear area base, the regiment or squadron interfaces with the operations cell for IPB products.

All base and base cluster commanders are responsible for developing defense plans designed to detect, defeat, and minimize the effects of enemy attacks on the base and base cluster. The focus of base and base cluster self-defense is Level I and limited Level II response. These designated reaction forces are always the first to be committed when contact is made. They execute defensive and limited offensive missions as directed in the base and base cluster defense plan. IPB and intelligence summary updates determine the level of readiness maintained by the unit.

The regiment or squadron as a base cluster in the rear area submits its defense plans to the rear command post for integration into the overall defense of the rear. Its defense plans are integrated into the rear counterreconnaissance/reconnaissance and surveillance plan. In the corps rear area the regiment coordinates with the rear area operations center (RAOC). In the division the squadron coordinates with the rear command post through continuous communication and liaison officers.

Response operations return base and base cluster units rapidly to their primary support missions after contact with the enemy. The nature of the rear area facility under attack and the level of threat against the facility are critical factors in determining the level of response required. The rear operations cell designates the response force, normally military police (MP) units, to counter a Level II threat. Division and regimental MPs may be reinforced by corps MP assets. These forces may be committed when a base or base cluster commander requires support. The MP response force's task is to eliminate a threat without requiring the premature commitment of the tactical combat force.

A designated tactical combat force will respond to a Level III threat. The tactical combat force may be a dedicated force, but is more often a contingency mission assigned to a unit. At division level, it is normally a combined arms battalion-size force, composed of ground maneuver, attack helicopter, and field

artillery under a designated headquarters. The corps tactical combat force is a similarly organized brigade-size force. Once designated or committed, the tactical combat force comes under the operational control of the rear command post. Commitment of the tactical combat force is a decision of the corps or division commander on the recommendation of the rear area commander.

Cavalry units are responsible for their own Level I response in the rear area assembly area. The combat power of cavalry units allows them to normally perform their own Level II response as well. The regiment or squadron may be designated as the tactical combat force or form part of it upon arrival in the rear area.

Sustainment

The combat service support cell of the rear command post plans and directs sustainment operations. The corps support command and division support command execute the sustainment plan. The regiment or squadron does not become involved in this rear area function.

Movement

Movement control includes the planning, deconfliction, and execution of movement plans, both internal and external to the corps or division. The G3 is responsible for directing the movement of tactical units through or within the area of operations. The rear area commander is responsible for deconflicting other movements and planning security and sustainment of tactical movements within the rear. Division cavalry may support the tactical movement of major combat units in the division or units of other divisions in transit.

ROLES PERFORMED IN REAR OPERATIONS

Division cavalry may perform a number of roles when operating in the rear area (see Figure 8-8). These roles are normally assigned only when existing MP support is insufficient, or based on METT-T, to perform the required rear area functions. Cavalry units assigned these roles coordinate closely with the MP headquarters to preclude duplication of effort. Roles are not assigned or effective until sufficient reconstitution has occurred. These roles may not be performed solely in or be restricted to the rear area. Specific missions may take the squadron out of the division rear area. These roles are largely performed as reconnaissance and security operations.

The regiment's roles in the rear area most often include tactical combat force or reserve operations. The other roles listed in Figure 8-8 may be performed as necessary.

Figure 8-8. Rear operations roles.

Tactical Combat Force

As part of the overall task organization and based on an anticipated threat to the rear area, the G3 designates a tactical combat force as the Level III response force. Upon arrival in the rear area, cavalry may receive this mission to free other maneuver forces. Division cavalry requires reinforcement to perform this mission. These reinforcements are dictated by IPB and factors of METT-T. Because rear area threats are often infantry heavy, the squadron requires infantry. If facing a threat equipped with heavy armored vehicles, the squadron may require an attached tank company or company team reinforcement. Additional aviation units may be placed under operational control upon commitment. Field artillery may be task organized as part of the tactical combat force or provide fire support for overall rear operations. The regiment normally has sufficient combat power to serve as a corps tactical combat force, but may require reinforcement with infantry in some cases.

The requirements of the tactical combat force or nature of the threat may be more than the division cavalry command and control structure can handle. These situations may require a larger headquarters to effectively integrate all assets involved. In such a case, the squadron may serve as part of the tactical combat force performing reconnaissance and security missions.

The tactical combat force is normally committed after the rear area commander determines that both the Level I and II response forces have failed, or would fail, and the enemy continues to pose a risk to corps or division rear operations. Once the commander decides to commit the tactical combat force, the rear operations cell designates an area of operations (AO) for it. All units within the AO are under operational control of the tactical combat force until the enemy is eliminated. Combat actions of the tactical combat force and other units in the area directed by it take priority over all other activity.

PLANNING CONSIDERATIONS

Upon receipt of the mission, the regiment or squadron enters the rear operations net. The commander receives planning guidance from the operations cell. The

relationship of the cavalry unit with the rear command post is the same as with the main command post. The rear operations cell provides rear IPB, friendly unit disposition, existing defense plans, fire support plans, priorities for protection, and the rear area commander's concept.

The operations cell may task the tactical combat force to coordinate and provide fire support to Level II response forces when committed. This frequently occurs when artillery is task organized as part of the tactical combat force. The operations cell provides the rear area fire support plan to the tactical combat force and coordinates with the main command post for additional fire support as necessary. Base and base cluster commanders normally do not receive fire support for Level I responses. If artillery remains under control of the operations cell, the tactical combat force receives guidance on priority of fires. Normally the tactical combat force receives direct support of rear area fire support when committed.

The rear operations cell assigns specific reconnaissance and surveillance tasks to the MP response force and cavalry in the rear area to preclude duplication of effort. The cavalry unit staff coordinates directly with MPs and other Level II forces regarding the exchange of reconnaissance information, contingency plans, and operation plans. Battle handover, when in contact, is performed the same as for any other mission. Following handover, the MP response force may be placed under operational control of the cavalry unit or released for other missions.

When designating the area of operations for the tactical combat force, the rear operations cell provides boundaries that completely define the area. Any special control measures or restrictive fire measures around friendly units are also provided. The operations cell can seldom provide more detailed graphics.

METHODS

There are two basic methods that cavalry may use to accomplish the mission. In the first method, the squadron remains in an assembly area until committed by the rear command post (see Figure 8-9). The unit monitors the rear operations net and moves to a higher state of readiness as indicators warrant. The staff conducts hasty movement planning and develops contingency plans for likely enemy actions. This planning facilitates rapid execution. Air cavalry is most responsive and can be sent forward to perform reconnaissance, coordination, and liaison tasks. This serves to speed the subsequent assumption of the fight. The commander designates a line of departure, zones for subordinate units and objectives, or a limit of advance. Additional control measures are used as in an area reconnaissance or movement to contact. Movement to the line of departure is performed as a tactical road march to get there as rapidly as possible. The rear command post is responsible to clear all other traffic off the route of march used by the tactical combat force.

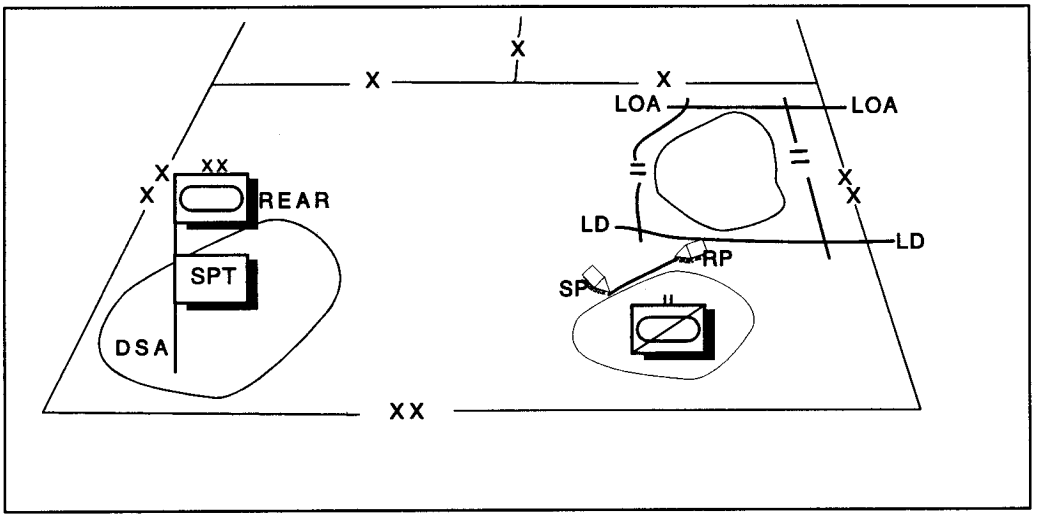


Figure 8-9. Tactical combat force (method one).

Subordinate units are assigned missions depending largely on information known. If little is known, squadrons and troops perform zone reconnaissance and the commander may retain a large reserve. If the friendly and enemy situations are better identified, subordinates perform movement to contact and the commander may retain a smaller reserve. The mission will most often culminate in a hasty attack to destroy the enemy force.

Speed of execution will catch an enemy, especially air landed or airborne, before he becomes fully organized. This method provides the most rapid response of massed combat power by the tactical combat force and is preferred when other rear area assets provide adequate surveillance of the rear area.

In the second method, the commander designates subordinate units to perform surveillance of likely enemy entry points for forces requiring a Level III response (see Figure 8-10). These positions focus on the priority of protection established by the rear operations cell. Based on IPB, these positions include ground and aerial avenues of approach, drop zones, and landing zones. The subordinate ground units are best suited for this task. Depending on the location of the surveillance area, squadrons or troops can operate out of the parent unit assembly area or establish a separate assembly area. A separate assembly area requires coordination with the rear command post. Troops perform this task largely as a screen. The squadron retains a reserve to rapidly reinforce a unit that gains contact. Air cavalry can serve as part of the reserve or screen large areas that would overextend the ground troops. The cavalry should avoid duplicating the efforts of the division MPs in performing area security and concentrate on high priority areas.

Units must rapidly respond to contact to prevent an enemy force from becoming too organized. The unit gaining contact develops the situation as much as possible for the squadron. Air cavalry may reinforce the element in contact until the arrival of the squadron main body. The squadron commander masses the remainder of the squadron to attack and destroy the enemy based on the information provided by the element in contact. The regimental commander may or may not commit other squadrons based on the assessment of the situation. The commander uses simple but clear control measures as in a movement to contact. Troops and company teams perform movement to contact and hasty attack missions. The response in this scheme of maneuver may be slower because of the necessity to mass the squadron. The commander must be careful about piecemeal commitment of subordinate troops or company teams into the attack as they arrive. This concern should not outweigh the advantage of attacking the enemy before he becomes organized and poses a greater threat.

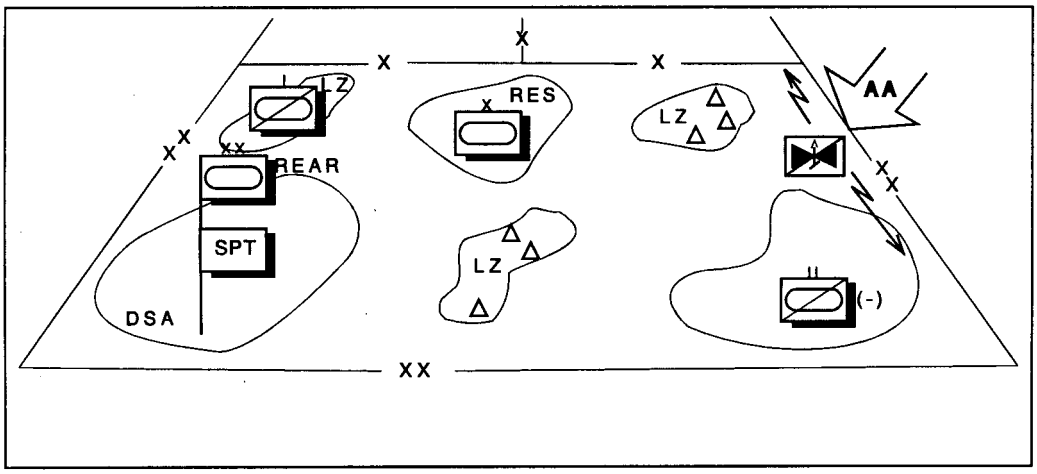


Figure 8-10. Tactical combat force (method two).

When the squadron has direct support artillery, it is positioned where it can best range likely enemy targets and where it can support subordinate elements in surveillance positions. In some cases, troops may initially rely exclusively on their mortars until artillery can be repositioned. When artillery is retained in general support to the rear area, the fire support officer plans fires to support the squadron in its various contingency missions. Liaison and communications with the artillery unit are established in advance. Clear procedures establish quick assumption of a direct support mission when the squadron is committed.

The regiment and squadron command post is established in the assembly area and operates on the rear operations net as well as internal nets. The TAC CP may be positioned forward to retain effective communications with widely dispersed subordinate elements. Service support is based in the assembly area and standard LOGPAC operations used to support dispersed units in their surveillance positions.

Restore Command and Control

Command and control within the corps and division areas of operation is subject to disruptions of physical contact and communications. Cavalry may be tasked to restore these links for the commander. This is particularly a mission for division cavalry. The squadron is not a substitute for the division command aviation section or unit liaison officers. Rather, the squadron performs this task when the situation is critical, enemy contact is possible, or terrain must be held. The squadron may be tasked to restore contact with a maneuver brigade or rear area unit, or to fill gaps that have developed between units. This task often takes the squadron out of the division rear area for extended periods.

The squadron performs this role primarily as reconnaissance. If the mission is to restore a link with a subordinate command, the squadron performs route and area reconnaissance to locate the command post or commander, and may initially maintain communications links with the division for the subordinate command until theirs is restored. An air cavalry troop is ideal for this mission because of its ability to rapidly transit cluttered rear areas and gain a broad perspective of the subordinate unit's situation. The area reconnaissance focuses on the last known location of the command post or commander.

In fluid offensive or defensive operations, gaps may develop between subordinate brigades of the division or between divisions. The regiment or squadron may be assigned the mission to fill the gap. The regiment may do this as a whole or assign the task to a reinforced squadron. Cavalry performs this mission as a zone reconnaissance or movement to contact (see Figure 8-11). A tactical road march, coordinated with the rear command post, is conducted to rapidly clear the rear area. A line of departure is designated where the gap appears to begin and a limit of advance is designated along the FLOT. Lateral boundaries may be difficult to define, but are the known trace of organized friendly units at the start of the mission. As friendly units are located during reconnaissance, boundaries are modified. The regiment or squadron must establish contact with both friendly units to preclude engaging each other. Liaison officers are critical in this task and air cavalry may also serve in this capacity. Contact is established with both units along the line of departure and a passage of lines may be required. During the reconnaissance, both friendly and enemy units may be encountered in the zone. These units may or may not be organized. Identification of friend from foe is critical. Friendly units will be directed to return to their parent unit through the rear area, remain in place until consolidated by their parent unit, or move with the cavalry. An organized unit moving with the cavalry may provide the squadron commander with additional combat power. Upon reaching the limit of advance, or an adjusted one along a new FLOT, the regiment or squadron screens or guards until receipt of other orders.

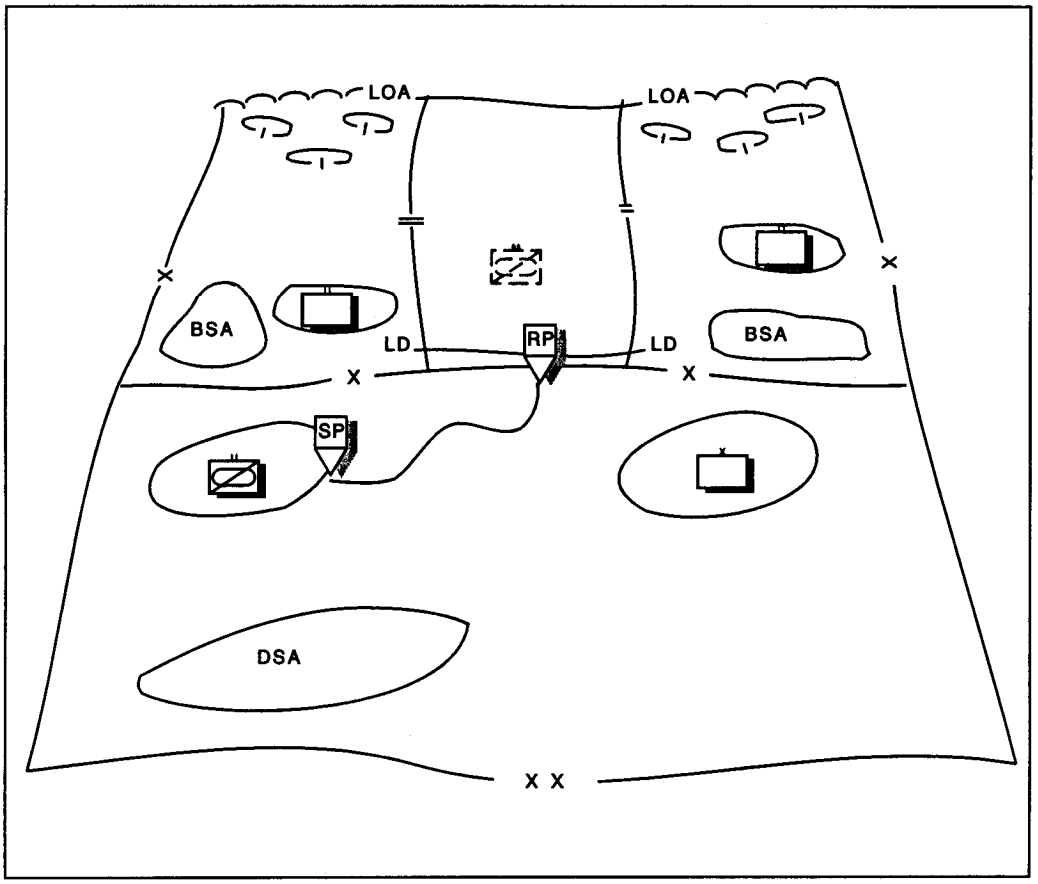


Figure 8-11. Filling a gap.

Facilitate Movement

Movement of combat forces across the battlefield is essential to successful execution of the commander's concept. Effective movement control is not a new battlefield requirement. Napoleon recognized its critical role when stating "aptitude for war is aptitude for movement." This is especially the case when sufficient MP support is not available. The difficulty of this requirement is compounded when the battlefield has been fought across or when moving through other units. Movement control reduces these problems and provides a system that accurately plans major unit movements.

When the division or a major subordinate element is involved in a tactical move that requires timely execution, the squadron may be assigned tasks to support the movement. If another division is transiting the division area of operations, the squadron can support the movement. Regimental cavalry supports its own movement. It is normally performing other missions when major elements of corps combat power move. These paragraphs focus on division-level movement, but the techniques apply to regimental movement as well.

The squadron frequently continues with another mission after providing movement support, such as zone reconnaissance or advance guard. If so, the squadron planning for movement support is integrated into the concept for the follow-on mission. If the squadron is only tasked to support the movement of a major subordinate unit through the division area, the squadron may delegate subordinate troops to perform the mission. This method lends itself to formation of air and ground teams.

The squadron receives orders from the movement control officer responsible for the move. This is normally a designated senior leader of the moving unit. The squadron or troop performs route reconnaissance of the designated route or routes for the movement. Engineers may be attached to reduce obstacles, emplace tactical bridging, and conduct detailed evaluations of roadways and bridges. The squadron reconnoiters from the unit start point to the release point and may be tasked for a subsequent area reconnaissance of an assembly area or attack position. The squadron is followed on the route by other movement advance parties, to include movement control teams, quartering parties, engineers, and maintenance and logistics support teams. Route information must be continuously reported so that these follow-on elements are informed.

The squadron may also provide movement control teams. This task precludes the ability of the squadron to transition easily into follow-on missions. The squadron is suited to perform this task when the division movement is into or out of an area of operations as opposed to tactical battlefield movements. Movement control teams use three measures in accordance with STANAG 2025. In coordination with MP and echelon transportation headquarters, they establish traffic control points, perform mobile patrols, and erect temporary road signs. Traffic control points provide control at critical points. Mobile patrols travel an assigned segment of the route looking for and eliminating movement problems. Temporary signs are used to regulate, guide, and control movement along the route.

Movement control teams are structured around the scout platoon to maintain a cohesive chain of command. These teams provide control in accordance with the movement order. Each movement control team consists of at least one scout squad and the squads of a platoon are positioned consecutively along the route. The platoon headquarters can provide the mobile patrols along the platoon segment of the route. The troop commander, in turn, controls the troop route segment. Troop combat trains are positioned to support the troop and the unit movement. Air cavalry troops can provide wide-ranging mobile patrols, search for misdirected march elements, and rapidly move to a problem area along the route. Observation aircraft are best suited for this task to conserve attack helicopters for subsequent missions. Pilots may frequently be required to set down and conduct coordination with units on the route.

Temporary signs are traffic signs erected to regulate the flow of traffic along the route. Movement control personnel place temporary signs where hazards exist or where traffic must be regulated. The signs show drivers the location of detours, key units, and facilities; give directions, distances, and general information; and identify routes. Temporary sign use is governed by STANAG 2174. In addition to the

planned use of temporary signs, movement control personnel should be prepared to use temporary signs during emergency situations.

Use of signs reduces the number of movement control personnel needed along the route. Signs can replace manned positions. Patrols, however, must continually check the signs to detect tampering.

Area Damage Control

Area damage control is the measures taken before, during, and after hostile actions, or natural or man-made disasters, to reduce the probability of damage and minimize its effects. Area damage control is decentralized at the lowest level. All base and base cluster commanders plan for damage control to ensure continuous support and the immediate restoration of operations. The extent of destruction may be greater than the base and base cluster commander can handle or effective command and control may be disrupted. In such cases, other units may need to assume the damage control mission. Area damage control may be part of another rear area mission, such as tactical combat force operations, or performed as a mission itself.

When an area damage control mission is assigned, the rear operations cell provides much the same planning guidance as in tactical combat force operations. This guidance is broad, but normally includes the following:

- Defined area of operations. The area is normally defined by boundaries. All units within the area are under operational control of the area damage control force until the mission is complete.
- Information on enemy forces in the area.
- Nature of damage that has occurred. Of particular concern is destruction caused by nuclear or chemical weapons. Known or estimated ground zero and fallout predictions are critical to plan areas to be avoided. The assigned area of operations may be shaped by the requirement to perform radiological monitoring and chemical agent detection.
- Task organization. The size of the area, extent of damage, or nature of damage dictate support that the cavalry unit requires. This is particularly the case for division cavalry. Assets provided may include medical personnel or units, engineers, maintenance contact teams, MPs, NBC reconnaissance and decontamination units, and host-nation personnel.

Cavalry performs this mission like an area reconnaissance. Specific tasks include the following:

- Reconnoiter to determine the extent of damage. Clear obstacles and debris that block critical routes or facilities.
- Locate and report the condition of units or civil population in the area.

- Assume control of survivors. Host-nation support personnel, when available, assume control of the civil population.
- Establish communications between units and the rear command post.
- Assemble combat-capable elements and pass them instructions from the rear command post on movement, area damage control support, or resumption of their primary mission.
- Establish casualty collection points and evacuate and treat casualties as appropriate. Civilian casualties may be treated based on space available or in agreement with host-nation support personnel.
- Establish maintenance collecting points and evacuate vehicles and equipment for classification and repair.
- Perform NBC reconnaissance and decontamination.

The severity of damage requiring commitment of outside forces for support normally takes a squadron-size force to perform the mission. Ground troops perform reconnaissance. Air cavalry troops perform reconnaissance and liaison tasks. Headquarters troop and attached special support units establish and operate collecting points. Attached units also support the squadron in obstacle reduction, survivor control, casualty and equipment evacuation, and NBC reconnaissance. In-place units are used to the extent possible to provide additional support.

Section III. Deception Operations

Deception operations are military operations conducted to mislead the enemy. The target of the deception is the enemy commander who can make decisions about the actions of his forces. A unit conducting a deception operation may or may not make contact with the enemy. A sound deception plan is simple, believable, and not so costly that it diverts resources from the main effort. The corps or division G3 assembles the deception plan, making use of every unit and asset available to protect the deception story and elicit the desired enemy response. The tactical deception plan of the division is coordinated with the operational deception plan of the corps.

Regimental and division cavalry units are practical forces around which to build a deception plan. Deception is inherent in reconnaissance and security missions by denying the enemy information about friendly activities. Deception is also important when performing missions as an economy of force. With minimal reinforcement, the division cavalry squadron can assume the appearance of a battalion task force. Adequately supported by other division assets, a cost effective deception can be developed. The squadron commander may serve as the deception force commander or be subordinate to another commander. With little or no reinforcement, the cavalry regiment can easily depict a brigade, and its squadrons can portray battalion task forces. With adequate reinforcement from corps, the regiment can depict a division.

If the corps commander decides to use the regiment in a deception role, he must weigh this against the loss of the regiment in its normal role of reconnaissance and security.

The corps and division can establish recognizable patterns of activity by repeatedly using its cavalry for specific reconnaissance and security missions associated with offensive or defensive operations. Deception may occur by using cavalry units on such missions to intentionally mislead the enemy. In this case, no augmentation would be needed.

TACTICAL DECEPTIONS

Tactical deception operations include feints, demonstrations, displays, and ruses.

A feint is an offensive operation intended to draw the enemy's attention away from the area of the main attack. The objective is to induce the enemy to move his reserves or to shift his fire support in reaction to the feint. Feints must appear real; therefore, some contact with the enemy is required. It is usually conducted as a limited objective attack ranging in size from a raid to a supporting attack. The divisional cavalry squadron may be reinforced with tanks or infantry to conduct a feint or to participate as part of a feint by a larger unit. Regimental cavalry requires no reinforcement to conduct a feint.

A demonstration is an attack or show of force on a front where a decision is not sought. It is similar to a feint except that no contact with the enemy is sought. The division cavalry squadron may conduct a demonstration reinforced with adequate combat or combat support assets to portray the desired unit signature. A demonstration normally involves less maneuver assets than a feint.

A display is conducted to mislead the enemy's visual senses, including his observation by radar, camera, and infrared or thermal devices. A display includes simulations, disguises, portrayals, or some combination. Displays can be very effective during economy-of-force missions.

The additional combat and combat support assets organic to the armored cavalry regiment provide additional capabilities in performing demonstrations and displays. The military intelligence (CEWI) company and aviation squadron, in particular, are very useful in portraying unit signatures and activity, and can be quickly withdrawn from the area for use elsewhere after the desired enemy response has been achieved.

A ruse is a trick designed to deceive the enemy, thereby obtaining an advantage. It is characterized by deliberately exposing false information to the collection means of the enemy.

A deception plan normally includes aspects of all four types of deceptions. The regiment and squadron may form the maneuver force and be tasked to perform specific deception tasks. Combat support units, such as signal, PSYOP, and CEWI units, are well suited to perform displays and ruses supporting the maneuver units. FM 90-2 provides a detailed discussion of tactical deception operations.

PLANNING CONSIDERATIONS

Regimental or squadron planning is governed by the plan developed by the corps or division G3. This plan may be highly detailed or general in nature. Tasks given to the regiment and squadron may be very detailed or provide greater freedom of action. The commander analyzes the plan as he would the receipt of any other mission. The intent of the deception must be clearly understood. Task analysis determines the mission and the extent of deception preparations required. Deception preparations can add substantially to the time required to prepare for the tactical mission. The tactical mission is frequently a movement to contact and hasty attack.

When the divisional squadron is required to conduct a feint, the commander determines the extent of contact required with the enemy. He ensures he is adequately reinforced to accomplish the mission and the intent of the deception. Regimental cavalry requires little reinforcement to perform a feint. However, the regimental commander must ensure he has the assets necessary to accomplish the feint. This may require reinforcement with additional assets (such as infantry, if a deliberate attack is conducted).

Feint and demonstration are the most likely missions assigned to armored cavalry units. Both may require the regiment or squadron to portray itself as a division or brigade (regimental cavalry) or battalion task force (division cavalry). The commander task organizes his squadrons, troops, and company teams to appear that way when maneuvering. Squadrons must maneuver as battalion task forces while performing the mission. Mortars may be consolidated into a platoon, scouts maneuver as infantry, and command and control structure reorganize as necessary.

Displays and ruses may be in the form of altering vehicle and unit identification markings, portraying notional command and control nodes, conducting false radio net traffic, and dropping misleading documents where the enemy can recover them. Elaborate ruses generally require substantial preparation time.

The regimental or squadron commander coordinates closely with other units involved in the deception to ensure that actions are fully integrated, do not needlessly overlap, and do not give away the deception.

Commanders should consider the use of simple deception measures in the performance of all missions.

Section IV. Movement

Movement across the battlefield can be complex to execute when considering heavy route congestion, battlefield debris, limited route priority, converging forces, crossing unit boundaries, impassable routes, enemy ground or air interdiction, and civilian refugees. Army doctrine requires units to rapidly move on the battlefield to concentrate combat power when and where needed. The successful accomplishment of a mission is directly related to the cavalry unit's ability to arrive in effective fighting condition at the proper place and time. Section II discussed movement support provided by the division cavalry to other units of the division to facilitate their movement. This section discusses organizing and controlling movement of the regiment or squadron. Movement control involves the planning, routing, scheduling, and control of unit movement over lines of communication.

Movements may be classified as administrative or tactical. Administrative movements occur in the communications zone to deploy or reposition forces. The S4 is responsible for planning these nontactical movements. These movements are normally controlled closely by and coordinated with a movement control center responsible for the communications zone. The armored cavalry regiment has an organic movement control center in the regimental support squadron, which controls and coordinates movements with the movement control center responsible for the communications zone.

Movement in the combat zone of the corps or division is tactical. This movement is planned by the S3 and often precedes a combat operation. In rear areas these movements are also coordinated with movement control centers. A higher degree of security is maintained during tactical movement because of the increased risk of enemy attack.

Movements are normally conducted as road marches. A road march is characterized by the following factors:

- Unit relocation, not making contact with the enemy.
- Prescribed rates of march and intervals.
- Rapid movement.
- Security.

Movement may also be conducted by air, rail, or water. For discussion of these means, see the references listed below.

- Air movement—FM 55-9, FM 55-12, and FM 100-27. Air movements are discussed in detail in FM 90-4 and FM 100-103.
- Rail movement—FM 55-20.
- Water movement—MTMC Report TE 80-01-46.

ORGANIZATION

Successful movements are well organized. The organization of the unit for a road march is suited for inclusion in the unit SOP to delineate tasks and responsibilities.

Movement control is a key consideration in planning. The commander and staff are involved in planning, supervising, and refining execution of the movement. Both the commander and S3, however, will also be concerned with plans for the tactical commitment of the unit once the march objective is reached. The details of movement planning and supervision are largely the responsibility of the XO who serves as the movement control officer.

Units organize into march columns to conduct movement. A march column includes all elements of a force using the same route for a single movement under the control of a single commander. Whenever possible, a force marches in multiple columns over multiple routes to reduce closing time. A large column may be composed of a number of subdivisions, each under the control of a subordinate commander. March columns are composed of four elements:

- Reconnaissance party.
- Quartering party.
- Main body.
- Trail party.

The reconnaissance party is normally a scout platoon. Aeroscouts can also be used. The reconnaissance party moves out as early as possible to reconnoiter the assigned route or routes and any designated holding areas along the route. The reconnaissance party is not considered part of the main body and moves by infiltration. The designated reconnaissance party may be reinforced with engineers to assist in minor mobility tasks. The party is under the control of the movement control officer. Route trafficability and choke points are determined or confirmed. Bypasses around obstacles are found and marked. The movement control officer instructs the reconnaissance party on information required, report times, and mission upon completion of the reconnaissance. The movement control officer must coordinate bypasses located by the scouts as necessary.

The quartering party is normally a composite squadron organization consisting of the quartering parties of the troops. The quartering party is used if the squadron is going to occupy an assembly area upon arrival at the march destination. An assembly area is often used after long marches to provide time for the squadron to resupply, perform maintenance, and complete preparations for the subsequent mission. Unit first sergeants normally control troop quartering parties, and the

command sergeant major controls the squadron party. En route refuel points may be required for a long march. Vehicles comprising these points can move with the quartering party and drop off along the route at holding areas or halt locations. The quartering party normally follows the reconnaissance party and also moves by infiltration.

The main body is composed of the bulk of the regiment or squadron organized into serials and march units. A serial is a major subdivision of a march column organized under a single commander for planning, regulation, and control. The squadron is normally considered a serial, even if moving by itself. A march unit is a subdivision of a serial and is normally a platoon- or troop-size unit. It moves and halts under the control of a single commander using voice, visual signals, or radio when no other means of communication can be used. March units move as task organized for the follow-on mission whenever possible.

The trail party is the last march unit in the squadron serial. It is composed of elements of the combat trains under the squadron maintenance officer. The trail party is prepared to conduct repair and recovery of vehicles, medical aid and evacuation, and unscheduled refueling. If a vehicle cannot be repaired or towed, it is moved off the route and reported. The crew remains with the vehicle with sufficient food and water. The squadron must subsequently return to recover or coordinate for another unit to recover the vehicle. Vehicles and soldiers are not abandoned along the route.

PLANNING CONSIDERATIONS

Movement may be considered as either deliberate or hasty. Deliberate movement occurs when plenty of time is available to plan and prepare, resulting in a detailed and well-coordinated plan. This typifies administrative movements or long tactical movements. Hasty movement occurs when time is short. This typifies tactical movements, often when the regiment or squadron is in receipt of a FRAGO for a combat operation. Hasty movement normally does not involve crossing corps or division boundaries, although the cavalry unit can find itself moving across the parent unit area of operations.

Movement planning employs a backwards planning process. The mission following the movement drives the planning, which includes establishment of movement completion times, pass times, start point times, and organization of the unit for the march.

The march discipline necessary to execute a road march with routine precision can only be attained by strict adherence to SOP. This is particularly true for hasty movements. The unit SOP must provide for the following:

- Reconnaissance party.
- Quartering party.
- March rate factors.
- Vehicle intervals.
- March unit gaps.
- March unit organization and order.
- Actions on contact.
- Actions at halts.
- Security.
- Contingency plans for vehicle breakdowns, breaks in columns, and lost vehicles.
- Communications.
- Trail party.
- Control measures.
- Road march tables and movement planning guides.

Planning for a road march is conducted like any other mission. As the XO develops the concept he considers the following:

- Time available.
- Distance of the move.
- Current situation.
- Follow-on mission.
- Availability and condition of routes.
- Squadron task organization.
- Types, numbers, and characteristics of vehicles to move.

When possible, road marches are conducted at night to reduce vulnerability. Planning for night or limited visibility moves must consider the varying capabilities of night observation equipment. Radio listening silence is normally imposed. Coordination for moving air cavalry is made through the A2C2 system. Normally, the division cavalry squadron secures the airspace over the ground route as the air route. The regiment may do the same or coordinate a separate route for the aviation squadron. Using the same route facilitates movement control and aviation service support. The mobility advantage of air cavalry allows them to leave with and arrive ahead of, or leave after and arrive with the main body. Reconnaissance, quartering, and trail party considerations and airspace clearance influence this decision.

Relationships between time and distance are the basis for march planning (see Figure 8-12). The planner must determine how far the column is to travel (distance) and how long it will take to make the move (time). He must know the space (length of column) the column will occupy on the route as well as the time (pass time) it will take to pass a point from the beginning to end of the column. He must also include in his computations, the safety factor of distance (road gap) or time (time gap) that must separate march columns and their elements. Each term used for distance has a corresponding term for time.

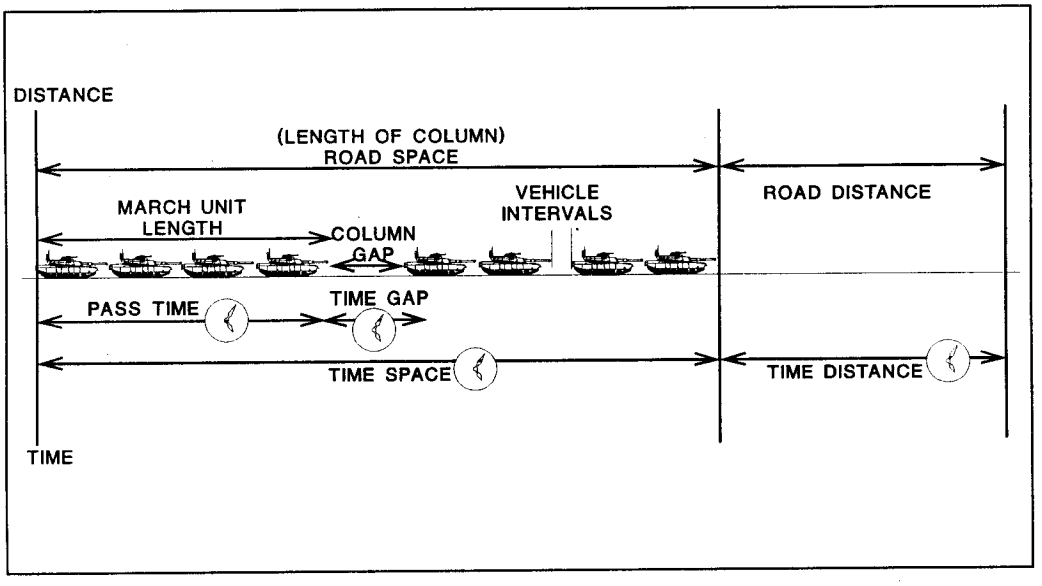


Figure 8-12. Time and distance relationship.

It is not always possible to conduct deliberate planning prior to executing a unit move. The regiment and squadron must be able to plan and execute a move based on verbal orders and adherence to SOP. A hasty movement may reduce the opportunities for reconnaissance and quartering party action. The unit may pass through an attack position instead of moving to an assembly area. The XO's planning time is driven by the mission execution time. He can quickly estimate the movement time by using a movement planning guide and distance of the move (see

Figure 8-13). Backward planning determines how much time is available for planning and preparation for the move.

The movement planning guide is a valuable tool to use when standardized movement factors must be altered to meet mission requirements. The regiment or squadron prepares a series of tables for subordinate march units, both organic and normal attachments. These tables reflect the most common task organization to provide a ready reference. The tables provide pass times based on different column intervals, rates of march, and time gaps. These three variables provide the most flexibility in adjusting movement times.

COLUMN (OPEN/CLOSED) UNIT/NUMBER OF VEHICLES	TIME GAP (MINUTES)	RATE (KMPH)				
		PASS TIMES (MIN)				

$$\text{PASS TIME} = \frac{\text{NO. OF VEH. X 60}}{\text{DENSITY X SPEED}} + \text{EXTAL} + (\text{GAPS X NUMBER OF GAPS})$$

Figure 8-13. Movement planning guide.

Section V. Assembly Areas

An assembly area is an area in which a force prepares or regroups for further action. As a rule it is secure from interference by enemy light artillery. Preparations can include reorganization, resupply, planning, issuing orders, and maintenance. Even though a degree of security is provided by being behind friendly lines, the unit always occupies the assembly area in a manner to defend itself if attacked.

The nature of any particular assembly area is a reflection of the tactical situation in which it occurs. Occupation may be hasty or deliberate, duration long or short. Occupation can occur after a long move to complete preparations for combat. It can be very hasty after a passage of lines to regroup. During rear operations,

cavalry occupies an assembly area as a base in the division rear area. Occupation may be directed by a higher commander or determined by the unit commander. Location and dimensions of the area can also be dictated or left up to the commander.

TASKS

Certain tasks are associated with planning, occupying, and operating an assembly area. These tasks are largely a matter of SOP. The circumstances in which the assembly area is occupied dictate to what extent these tasks are performed. The tasks are as follows:

- Site selection.
- Quartering party.
- Occupation.
- Security.
- Internal activity.
- Departure.

Site Selection

Site selection of assembly areas is governed by specific unit requirements. In division cavalry, the squadron can occupy one assembly area, operate a separate assembly area for the air cavalry troops, or operate out of separate troop-level assembly areas. Regimental cavalry may occupy one assembly area, but will normally assign separate assembly areas for each squadron. The regiment's size and the diversity of the units require that specific unit needs be carefully considered in assembly area site selection. For instance, trafficability for wheeled vehicles may be more of a concern for the support squadron than for a line squadron. An assembly area should have the following characteristics:

- Concealment from air and ground observation.
- Cover from direct free.
- Openings for positioning aircraft.
- Space for dispersion of vehicles, aircraft, personnel, and equipment.
- Good entrances and exits and adequate internal road or trail network.
- Good drainage, slope, and soil conditions to support vehicles, aircraft, and equipment.

The longer that occupation of the assembly area is planned or anticipated, the more important these characteristics become.

Quartering Party

Quartering parties are formed at troop level and at squadron level when appropriate. They are a composite of subordinate unit representatives. The squadron party also includes medics, communications, and staff representatives. The first sergeants control troop-level parties and the command sergeant major controls the squadron party. The quartering party provides for its own security. Quartering parties have three responsibilities: reconnaissance, organizing the area, and guiding arriving units. During tactical unit movement, area reconnaissance can be performed as a follow-on mission by the reconnaissance party. Air cavalry can perform reconnaissance of the assembly area early as part of the reconnaissance party. Area reconnaissance is performed to determine suitability of the area. Organizing includes selecting and marking unit and vehicle positions, improving and marking routes, and marking or removing obstacles. Guide duties include meeting units at the release point and leading them to positions.

Occupation

A squadron assembly area can be organized by assigning troops to sectors of the perimeter or by dispersing troops in their own assembly area within the squadron area. As units arrive, guides move them, without stopping, to unit locations and vehicle positions. Organization of the area based on unit order of march precludes congestion at the release point. Once in positions, units and vehicles make adjustments. Positioning considerations are as follows:

- Dispersion and hide positions.
- Vehicles and aircraft oriented out to facilitate defense.
- Command posts and trains centrally located for security, ease of support, and road access.
- Mortars sited to provide fire support.
- Communications by wire and messenger established within troops and with squadron.

Security

An assembly area is not designated as a defensive position, but the squadron or troop organizes it to detect and defeat an enemy ground attack. Security against air attack is best provided by passive measures designed to conceal the unit from detection. Guards at all entrances and exits control the flow of traffic. Observation posts cover key terrain features and likely avenues of approach. Platoons prepare fire plans and coordinate on the flanks. Security is augmented by patrols, sensors, and surveillance devices. Contact points for units assist in coordination. Roads are the specific responsibility of subordinate units. Fire support plans are prepared by the fire support team and fire support element. Minimal use of radios reduces electronic signature. Movement is confined to roads to preclude needless surface disruption, leaving a visible aerial indicator. Unnecessary vehicle movement is restricted. Noise and light discipline is enforced.

Internal Activity

Actions in the assembly area follow SOP and requirements of the situation. Planning, orders, resupply, reorganization, vehicle and aircraft maintenance, weapons maintenance, and rest occur. For pending combat operations, precombat checks and inspections occur. Reconnaissance of routes out of the area is made to prepare for departure and initiation of the follow-on mission.

Departure

Departing the assembly area is the first step of a mission and is just as important as the mission itself. A progressive system of increasing readiness, such as REDCON levels, ensures units are ready to move when required without needlessly tiring soldiers and wasting fuel for long waits. The assembly area is occupied with the follow-on mission in mind to preclude congestion on departure. Routes from subordinate unit locations are reconnoitered and timed. Subordinate units designate a linkup point and units move to and through that point based on their reconnaissance. Departure is conducted under radio listening silence.

AIR CAVALRY ASSEMBLY AREAS

The air cavalry and attack helicopter troops normally operate out of either a rear or a forward assembly area. All troops are usually consolidated in the rear assembly area while a forward assembly area is occupied by only one troop at a time.

In the armored division cavalry, the two air troops and aviation unit maintenance (AVUM) consolidate to form their own air assembly area. Flight operations deploys with the air assembly area. and acts as its communications post. The air troop assembly area is either located in the vicinity of the squadron field trains as part of the base cluster or may operate away from the field trains but still outside of medium artillery range. Flight operations assist the air troops by tracking the battle and providing flight information. It is run by the flight operations officer or NCOIC.

The regimental aviation squadron normally establishes a squadron assembly area in the rear. The squadron command post, the bulk of the HHT and AVUM troops, and the assault helicopter troop operate out of this assembly area. The bulk of planning, maintenance, and service support takes place here. Troops rest here as well. The HHT provides support in the assembly area and establishes forward area rearm/refuel points (FARP) to support forward operations. The AVUM troop organizes contact teams to provide forward support at FARPs.

The forward assembly area is small and normally occupied for short periods by air cavalry and attack helicopter troops. It is used as a holding area where aircraft can shut down while waiting to be committed or to relieve another team or troop on station. This allows the troop to remain forward for rapid response when required while preserving fuel. Activities here are limited to minor maintenance by contact

teams, battle damage assessment and repair, and crew maintenance. The forward assembly area is usually located near a FARP to accommodate combat service support. Air crews in the assembly area must monitor squadron nets on aircraft radios to eavesdrop on the situation and respond when needed. Maintaining communications may require keeping an aircraft operating. Security from attack by medium-range artillery may be achieved by distance or cover afforded by terrain masking. The forward assembly area may be located in an urban area where aircraft can be hidden behind or in the shadows of buildings. It should not be located along high-speed ground or air avenues of approach. If the assembly area is positioned outside the regiment or the squadron's area of operations, coordination with the unit owning the ground is made. Troop operations cannot be restricted by this arrangement.

Section VI. Battle Handover and Passage of Lines

Battle handover is a coordinated operation between two units that transfers responsibility for fighting an enemy force from one unit to the other in the close-in battle. It is designed to sustain continuity of the combined arms fight and protect the combat potential of both forces involved. Battle handover is usually associated with conducting a passage of lines.

A passage of lines is a tactical operation designed to pass one unit through the positions of another unit without interference. A passage may be designated as a forward or rearward passage of lines. Passage may occur when security forces withdraw through the forward edge of the battle area (FEBA) or when an attacking or exploiting force moves through forces in contact.

Reconnaissance and security operations frequently begin or end with a passage of lines. Battle handover and passage of lines are inherent aspects of transferring responsibility for the battle between commanders while maintaining continuity of the fight. Cavalry can be either the passing or stationary force.

Battle handover may occur during both offensive and defensive operations. During defensive operations, it is normally coordinated in advance so that it requires only minimum coordination when ordered to occur. In the offense, it is often initiated by a FRAGO based on the situation at hand. Clear SOP allows units to quickly establish the necessary coordination to preclude a loss of momentum in the attack. The control measures used are simple and standardized.

In the conduct of air and ground operations, air and ground troop commanders often pass an enemy force in contact to one another. Battle handover governs this process in term of close coordination, fire support, and mutual understanding of responsibilities. The troops do not go through the structured process discussed in this section. This internal handover is established in regiment and squadron SOPs for rapid execution with minimum additional coordination.

BATTLE HANDOVER

Three key players are involved in a battle handover: the stationary commander, the passing commander, and their common commander. Each commander has certain responsibilities. The common commander defines the location and time for the handover, identifies any specific tasks, and monitors the execution. The passing and stationary commanders coordinate according to SOP and execute the handover. Until handover is complete and acknowledged by the two commanders, the commander in contact is responsible for the fight. Once battle handover is executed in a forward passage of lines, the passing commander assumes tactical control over the stationary force until passage is complete. In a rearward passage, the stationary commander assumes tactical control over the passing force until passage is complete.

Opportunities for a staggered handover that are advantageous for the corps or division may occur. These opportunities are seized when possible. The common commander specifies where the handover occurs and defines the resulting responsibility for the zone or sector. Generally, the commander in contact remains responsible for the zone or sector where handover did not occur.

Handover occurs along a line defined as the battle handover line. This line is a phase line recognizable on the ground forward of the stationary force. The line is established by the common commander in consultation with both commanders. The stationary commander has the major determination in the location of the line. This line is forward of the FEBA in the defense or the FLOT in the offense. It is drawn where elements of the passing unit can be effectively overmatched by direct fires of the forward combat elements of the stationary unit until passage of lines is complete. The area between the battle handover line and the stationary force belongs to the stationary force commander. He may employ security forces, obstacles, and fires in the area.

While a line defines the battle handover, seldom do events allow this to happen cleanly. Battle handover is a physical as well as command process. Physical handover should be viewed as a transition that occurs in the zone of the battle handover line. Events may dictate that a force break contact forward of or behind the line, as in the gap between echelons of an attacking enemy force. Close coordination, physical and by radio, between the two units involved in the handover allows those at the small unit level to coordinate and execute this process. The stationary unit is just as active as the passing unit.

Battle handover begins on order of the common commander of both units involved. Defensive handover is complete when the passing unit is clear and the stationary unit is ready to engage the enemy. Offensive handover is complete when the passing unit has deployed and crossed the handover line. The battle handover line is normally considered the line of departure for the attacking unit.

Coordination for battle handover normally flows from the commander out of contact to the commander in contact. This coordination overlaps with the

coordination for the passage of lines and the two should be conducted simultaneously. This coordination is best established as SOP to facilitate rapid accomplishment. Coordination normally includes the following requirements:

- Establishing communications.
- Providing updates on both friendly and enemy situations.
- Coordinating passage.
- Collocating command and control.
- Dispatching representatives to contact points.
- Recognition signals.
- Status of obstacles and routes.
- Fire support and combat service support requirements.

For the engaged force, the most important task is to maintain contact and continue the fight. The enemy must continue to see the level of activity that has been established. The enemy who perceives that the handover is occurring will attempt to seize the opportunity to destroy the friendly unit at a vulnerable moment.

In the regiment, passage of lines normally occurs at squadron level. The regiment monitors progress and coordinates with the higher headquarters of the other unit involved. The squadron is required to conduct detailed coordination and to execute the passage. This section discusses passage of lines at squadron level. The same considerations apply to the aviation squadron, combat support, and combat service support units of the regiment. The separate troop-size units of the regiment often conduct passage with a squadron, but may do so on their own or under regimental control.

REARWARD PASSAGE OF LINES

Passage of lines is the physical process conducted during the battle handover. The squadron is required to break contact and move through the defender to the rear. Breaking contact is supported by massed indirect fires, smoke, close air support, and assistance of the stationary unit. This can be difficult when facing an enemy who is attacking. The commander must structure the fight to allow the squadron to wrest the initiative from the enemy at least temporarily to permit the passage. The best opportunity for the squadron to pass lines is in the gaps between echelons of the attacking enemy formation when one has been stopped and the next has not closed. During a guard mission, this gap is frequently between the advance guard battalion and the regiment main body. During a cover mission, this gap is frequently between regiments. These gaps can be measured in terms of both time and distance. Executing a passage of lines while engaged in a major fight may well result in the loss of part or all the squadron.

A passage of lines is a complex operation requiring detailed coordination, extensive planning, and close supervision between units. As such, the conduct of a

passage of lines is a command and control challenge. On receipt of a warning order that directs an operation requiring a passage of lines, the passing unit commander and his staff establish liaison with the unit in contact or being passed. Normally the passing unit collocates its TAC or main CP with the TAC or main CP of the unit being passed. Certain basic considerations and coordination must be integrated/conducted at all levels in the planning process:

- Exchange of intelligence information.
- Exchange of tactical plans.
- Exchange of standing operating procedures.
- Arrangements for reconnaissance by elements of the passing units.
- Security measures during passage.
- Selection of areas of passage and provisions for guides.
- Priorities for use of routes and facilities and provisions for movement control. The passing unit must have priority.
- Time or circumstances when all responsibility for control of the area of operations will be transferred.
- Fire support and other combat support to be provided by the unit being passed.
- Exchange of liaison personnel at all levels.
- Collection and exchange of information on friendly minefield and obstacles.
- Command relationship between passing unit and the unit being passed concerning CS and CSS units, facilities, and locations.
- Tactical cover and deception plans to retain secrecy and to aid in maintaining and/or gaining surprise.
- Establishment of graphic control measures to ensure a smooth and well-coordinated passage.

One of the most critical aspects of a passage of lines is terrain management. The passing unit's S3 coordinates with the stationary unit's S3 to exchange information concerning the disposition of friendly forces within the stationary unit's area of operations. Stringent graphic control measures must be established and coordinated with all units involved in the passage to ensure success. The following graphic control measures are used in the planning and execution of passage of lines.

- Battle Handover Line (BHL). This line is established by the common commander in consultation with both commanders. The stationary commander has the major determination in the location of the BHL, as his force must be able to overwatch the BHL with direct fires.

- Contact Points. These are established forward of the BHL, on identifiable terrain (if available) and normally in the vicinity of the passage point.

- Passage Points (PP). Passage points should be concealed from enemy observation. Stationary unit guides may meet the passing unit at the passage point.

- Passage Lanes. These are established by the stationary unit to move the passing unit quickly through the defending unit's positions. Lanes are restrictive. They permit the movement of the passing unit through the battle position of the defending unit. This could include passing through gaps in friendly obstacles and moving near friendly engagement areas. The passage lane begins at the passage point and ends at the rear of the stationary unit battle positions. The passage is considered complete when the moving unit exits the lanes.

- Passage Routes. Routes are not as restrictive as lanes. Routes allow a passing unit to move more rapidly through the stationary unit area. If a passage route is used in conjunction with a passage lane, it begins where the passage lane ends. The number of lanes/routes designated will vary based on METT-T considerations, but as a general rule, multiple lanes/routes should be planned to facilitate the rapid passage of the moving units and to avoid unnecessary massing of units. The stationary unit may escort the passing unit along the lane/route.

- Release Point (RP). A well-defined point on a route at which the elements composing a march column return under the authority of their respective commanders, each one of these elements continuing its movement toward its own appropriate destination.

- Assembly Area. An assembly area in the rear area of the defending unit allows the passing unit to conduct hasty reorganization and emergency CSS actions. This assembly area is temporary in nature.

- Infiltration Points. Units should plan infiltration points for personnel not able to complete the passage with the unit. The passing unit's liaison officers may remain located with stationary unit's command posts to serve as a point of contact for infiltrating personnel/equipment. The key is that personnel attempting to infiltrate must have some way of contacting the stationary unit prior to attempting to cross into friendly territory.

Control measures used for the passage are integrated with the battle handover line as illustrated in Figure 8-14.

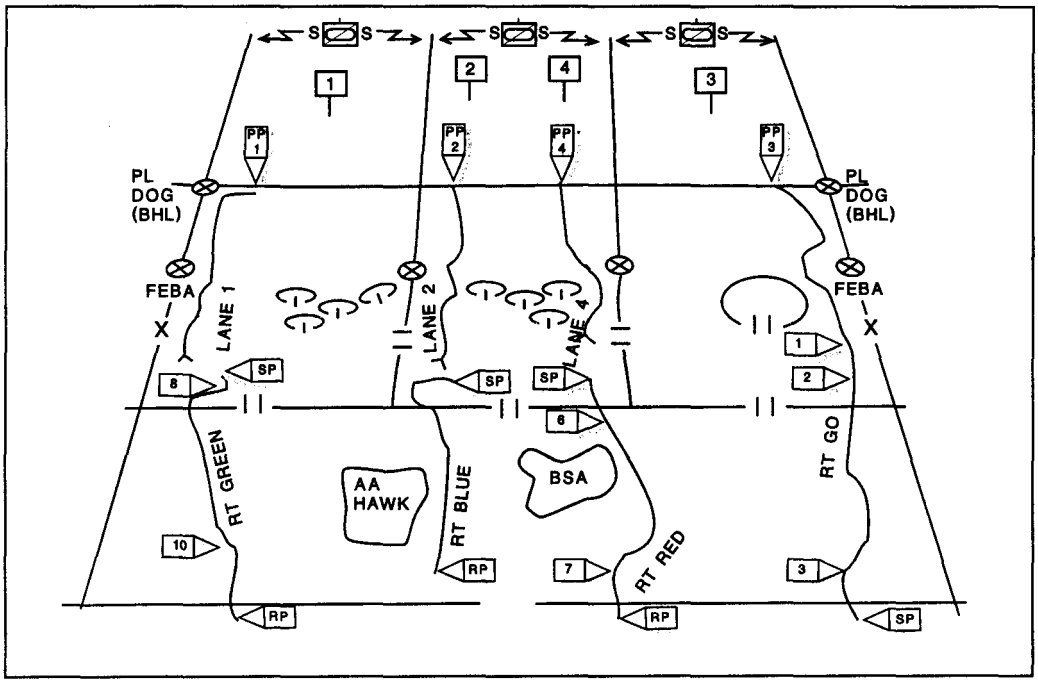


Figure 8-14. Rearward passage of lines.

Combat support and combat service support elements of the passing unit can initiate passage before it is actually ordered in order to assist as necessary during the actual conduct of the passage. This is most often the case with trains and fire support units. Locations for those assets where they can continue to conduct support operations are coordinated with the passing unit.

The force being passed should be prepared to fire supporting fires for the passing force as it crosses the BHL. Passing force artillery units may locate firing units in the stationary unit's area to assist in supporting fires or continue to move with their units. In either case, fire support plans must be integrated. Units should take advantage of the TACFIRE system to speed coordination of the fire plans.

The unit conducting the passage of lines may designate forces as a DLIC to maintain pressure on the enemy while the bulk of friendly forces break contact and withdraw. The DLIC may be a unit designated by the higher command, or it may be made up of elements from each troop/squadron. Mortars and other CS/CSS assets are part of the DLIC as necessary. Air cavalry may be part of the DLIC to increase the capability of the DLIC to accomplish its mission. If the greatest enemy threat lies on a single avenue of approach, the unit on that avenue may be left in place and augmented with elements from other units.

Due to their mobility advantage, air cavalry units will probably be the last units remaining in contact with the enemy before the battle handover is complete. The rearward passage of aircraft is coordinated the same as that of ground units. Aircraft may use the same passage points as ground units, and air corridors may follow the same routes used by ground units. Different passage points and air corridors may be coordinated with the stationary unit as necessary.

FORWARD PASSAGE OF LINES

A forward passage of lines is normally conducted to maintain the movement or offensive operation of a unit. This operation is necessary when the factors of METT-T do not permit one unit the freedom of bypassing another friendly unit and, therefore, must pass through it. As such, a forward passage of lines may be conducted to—

- Continue the attack or counterattack.
- Envelop an enemy force.
- Pursue a fleeing enemy.

Many of the planning procedures for elements executing a forward passage of lines is similar to those outlined for a rearward passage of lines. Control measures are simply reversed (see Figure 8-15). Attack positions can be used in the stationary unit rear area as necessary and should be coordinated whether or not they are actually used.

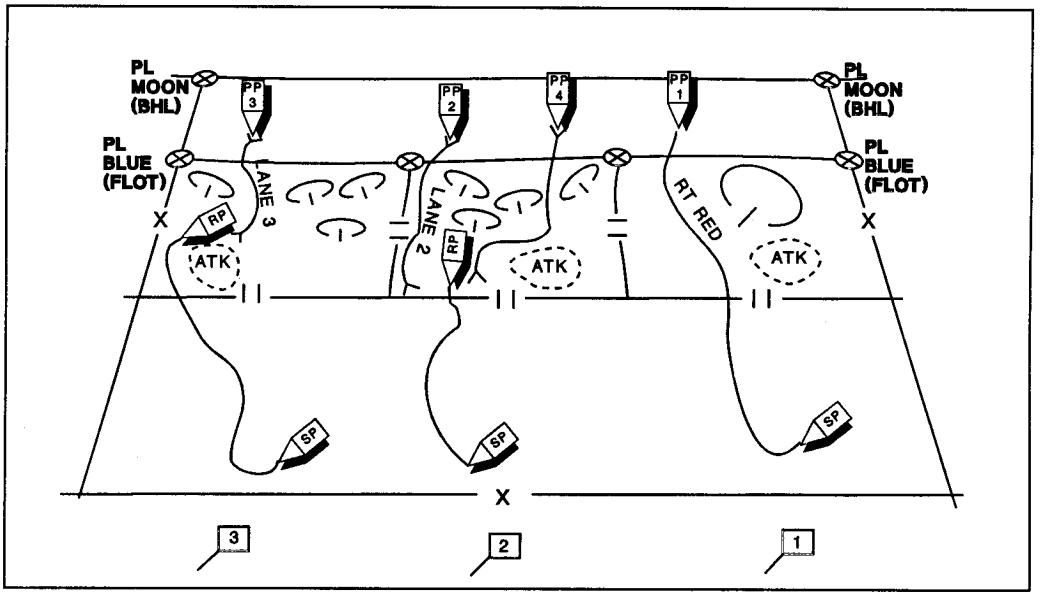


Figure 8-15. Forward passage of lines.

There are basically two techniques of passing the passing force. In the first technique, the passing force deploys in its attack formation in the attack positions to the rear of the FLOT and crosses the FLOT in attack formation. This technique is appropriate if there is adequate maneuver space for the passing force to deploy effectively, and to deploy without disrupting the stationary force defensive positions (such as desert operations). This technique also allows the passing force to rapidly attack once it crosses the FLOT.

In the second technique, the passing force may deploy after crossing the FLOT. Using this technique, the passing force crosses the FLOT in march column and then deploys into attack formations prior to crossing the BHL. This technique may be

required in more restrictive terrain. If this technique is used, the FLOT should be outside direct fire range of the enemy to allow the moving force to deploy without being fired upon.

In either of the techniques described, there will be stationary unit scouts on or near the BHL. The passing unit may have their scout platoon link up with stationary unit scouts and continue the mission, or may have combat units deploy along the BHL to overwatch movement of other units. The units on the ground at the BHL must know the scheme of maneuver of the passing force so they can act accordingly.

If the unit being passed identities a gap or weak point in the enemy's deployment, it should go about identifying axes of attack for the passing force that will take advantage of that weakness (recon pull). The premiere consideration is that the stationary force should not pass the moving force into the teeth of the enemy defense. The passing force must be flexible enough to modify its scheme of maneuver, if necessary, to take advantage of weaknesses in the enemy's defense.

LEADERS

The commander of the unit in contact is responsible for maintaining the fight with the enemy. His XO is the best choice to serve as the unit representative to establish contact with the unit out of contact. He has a clear picture of the entire unit situation and battle status. Coordination for the passage is normally conducted at the lowest level possible. Several troop XOs can be coordinating passage at different contact points simultaneously. The squadron XO coordinates their efforts and coordinates with the battalion or brigade command post. If the XO is unavailable or a troop has more than one passage point, SOP identifies other leaders who conduct this coordination. The troop first sergeant remains focused on combat service support and, in particular, recovery of battle damaged equipment and evacuation of casualties when in contact. He also begins coordination for combat service support requirements for subsequent operations.

Section VII. Relief in Place

A relief in place is an operation in which a unit is replaced in combat by another. Responsibilities for the combat mission and the assigned sector or zone of action of the replaced unit are assumed by the incoming unit. Reliefs may be conducted during offensive or defensive operations. They are normally conducted during limited visibility to reduce the possibility of detection.

The purpose of the relief is to maintain or restore the combat effectiveness of the committed unit. A relief can be conducted for the following reasons:

- Reconstitute a unit that has sustained heavy losses.
- Decontaminate a committed unit.
- Rest a unit that has been in prolonged combat.
- Conform to a larger tactical plan.
- Assign a new mission to the relieved unit.

Introduce a new unit into combat.

Defensive relief is conducted to continue the defense. Cavalry can relieve a larger force when assigned an economy-of-force defensive mission. Task organization normally does not resemble the force very closely. This is considered in determining the method of relief.

Offensive relief is normally conducted as a forward passage of lines to maintain the momentum of the attack.

METHODS OF RELIEF IN PLACE

There are three basic methods of conducting a relief in place:

- One unit at a time.
- All units simultaneously.
- Occupying in-depth or adjacent positions.

Relieving one unit at a time is the most time consuming but secure method (see Figure 8-16). Relief proceeds by troop or company team. Units are normally relieved in place with the relieving unit assuming the relieved unit's positions and missions. This method is most common when units have similar organizations or when occupied terrain must be retained. Subsequent to relief, the assuming unit makes adjustments to positions. The relieved units withdraw once they are relieved without waiting for other units. This method requires detailed planning and coordination. Most of the planning considerations discussed here apply to this method.

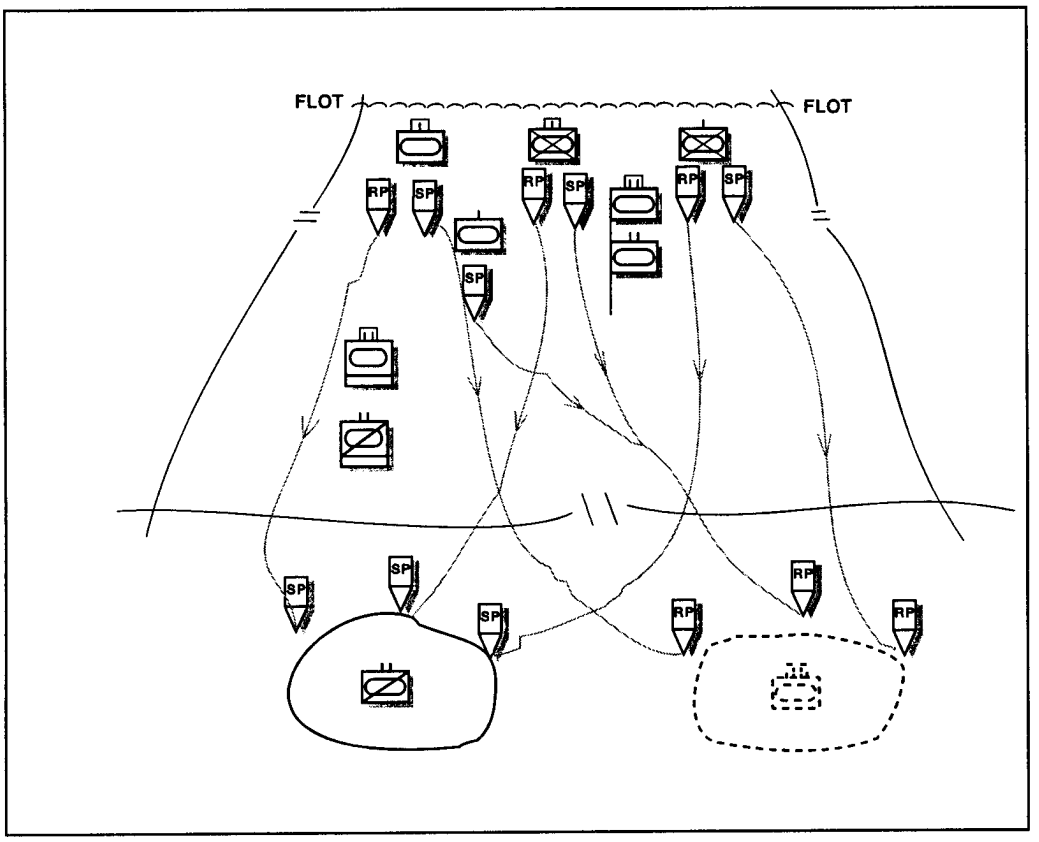


Figure 8-16. Relief in place.

Relieving units simultaneously is a variation of the first method. It is faster but less secure as all units are moving simultaneously. Close coordination is required to prevent congestion. Once command groups and combat trains are collocated, troops move forward at the same time along designated routes. Relief occurs simultaneously at each location. Relieved units withdraw immediately upon relief. The withdrawing unit does not wait to form up battalion or squadron march columns, but normally forms up at rally points behind the FEBA in platoon or company team columns before moving out.

Relief by occupying positions in depth or adjacent to the relieved unit is considered an area relief (see Figure 8-17). It is appropriate when units are dissimilar, when the relieving unit performs a different mission, or when improved defensive terrain is away from the line of contact. This method is also appropriate when the unit being relieved has been chemically or radiologically contaminated. Cavalry may frequently conduct this type of relief. When possible, the relieving unit should be able to place direct fires on the other unit's fire control measures. The relieved unit withdraws one unit at a time or simultaneously and conducts a rearward passage of lines through the relieving unit, if appropriate.

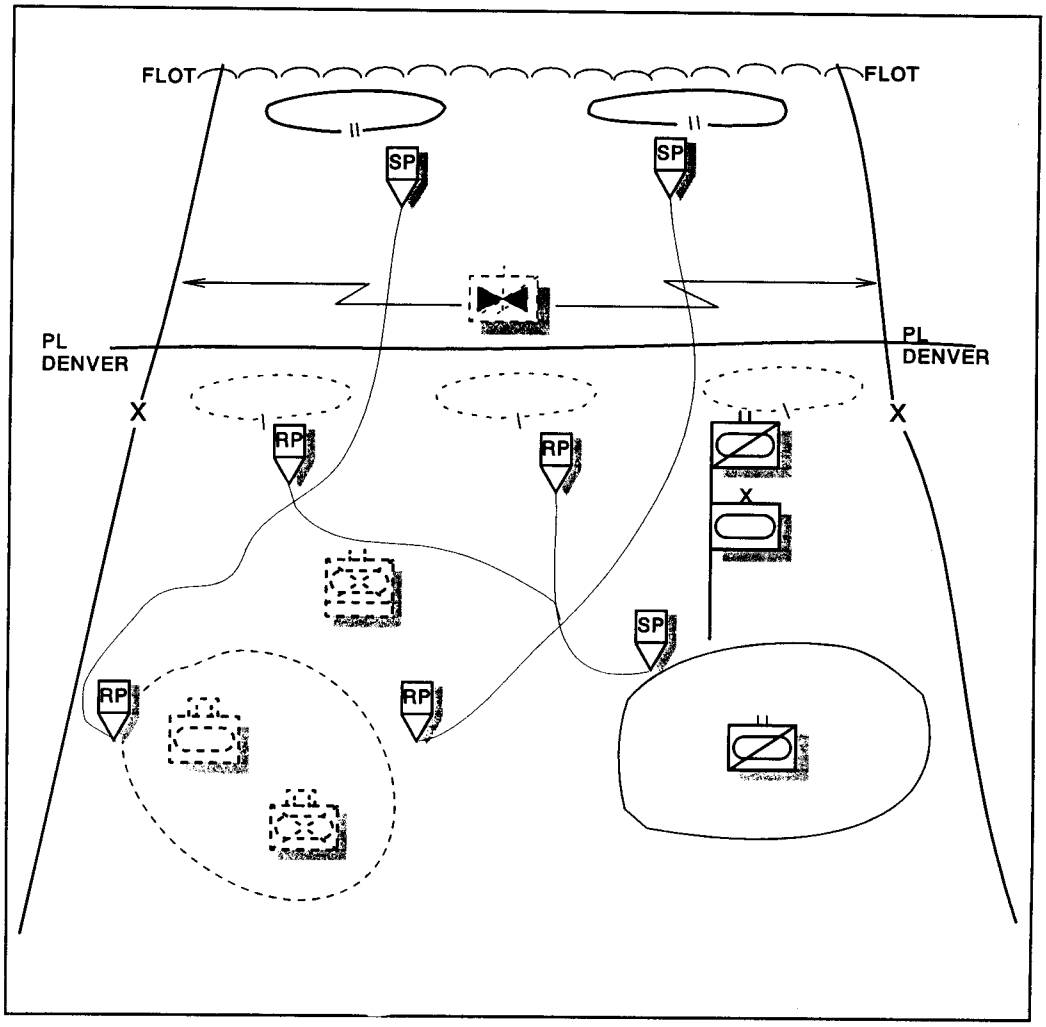


Figure 8-17. Area relief.

In all three methods the normal sequence of relief is from rear to front. Overlap always occurs with the relieved unit maintaining communications, fire support, and positions until relieved.

PLANNING CONSIDERATIONS

The relieving unit establishes continuous liaison with the relieved unit immediately upon receipt of the order. Liaison occurs down to troop and company level. Personnel from the outgoing unit remain with the incoming unit throughout the relief until the incoming unit is familiar with the situation. The squadron command group moves to the command post of the unit being relieved to coordinate the Operation. Combat trains are collocated to facilitate coordination and transfer of equipment, excess ammunition, fuel, water, and medical supplies. Liaison includes coordination of the relief, the relieved unit's scheme of maneuver and fire support plan, and intelligence updates.

The command net of the relieved unit is entered and monitored by the relieving unit. Troops and company teams of both units remain on their internal and parent unit nets. The relieving unit maintains radio listening silence on all nets until the relief is complete. The sudden increase in radio traffic is a quick indicator to the enemy that a relief is occurring. Upon passage of command, the relieving unit returns to its command net and lifts listening silence as necessary. The relieved unit should maintain radio listening silence during its withdrawal.

Normal reconnaissance and surveillance activity is continued. Surveillance teams and radar equipment of the outgoing unit remain in position until the relief is completed. If time is available and the situation permits, leaders down to troop and platoon level conduct a reconnaissance prior to the relief. Reconnaissance should be conducted during daylight and darkness as the incoming unit must know the location of individual and vehicle positions, weapons, communication centers, command posts, aid stations, and all other essential facilities. This reconnaissance should also include all routes for vehicle and foot traffic, the specific location of assembly areas, and locations for service support units. Reconnaissance parties in the forward areas should be small.

Deception plans aid secrecy and surprise. The normal patterns of activity must be maintained by the relieved unit. The relieving unit must, at least initially, conform to this pattern. The outgoing unit's radios are manned until the relief is completed to prevent the enemy from detecting a change. As a ruse, the relieving unit may replicate the relieved unit's radio nets as it departs to mask movement and preclude a detectable drop in established electronic signatures for the area.

The relief at troop level includes receiving the relieved unit's range cards, fire plans, and indirect fire plans. During a relief in limited visibility, ground crew-served weapons may be exchanged since re-laying them is difficult. The following equipment may be exchanged to the extent that commonality exists:

- Machine gun tripods and other supports for crew-served weapons or equipment.
- Bulky or excess supplies.
- Target reference point markers.
- Wire and hasty protective minefield.
- Emplaced sensors.
- M8 alarms.

Unit obstacle locations are identified, minefield are recorded and verified, and minefield records are transferred.

Fire support coordination and liaison are conducted between the units. If field artillery units are to be relieved, they are the first to collocate and the last to leave. Range cards, target lists, and overlays should be given to the incoming unit to ensure the effective delivery of fire. Fire support assets of the relieved unit remain in position throughout the relief of maneuver units and are prepared to support both units. Fire support assets of the relieving unit move into positions as quickly as possible so they can support both units during the relief. The howitzer battery of the regimental armored cavalry squadron may have to relieve a unit of larger size (such as artillery battalion).

If the outgoing artillery and its supported command are relieved at the same time, responsibility for fire support passes at the time of that relief. If the command of the field artillery and the supported maneuver units are passed at different times, the passing of fire support responsibilities is mutually agreed upon by the two fire support coordinators, unless otherwise directed.

Movement control is maintained by designating and ranking routes in priority. The squadron XO supervises unit movement. Rally points for the relieved unit are used at company level to quickly organize the unit for withdrawal. Guides are positioned at critical points along the routes. Assembly areas are designated and activities performed in these areas are specified. Separate assembly areas are designated for the incoming and outgoing units to minimize confusion. Time spent within assembly areas is minimized to avoid possible compromise.

Passage of command may be specified in the division or corps order as a time when relief is to be completed. At unit level, the commanders mutually agree to the sequence for the passage of command. This is physically accomplished when a specified percentage, normally greater than one-half of the relieving units are in position and report relief. Passage of command at squadron and task force level is acknowledged face-to-face by both commanders and passed to subordinates.

When planning and coordination are complete, the squadron commander issues his order. To reduce confusion and maintain secrecy, the relief order should, as a minimum, include the following:

- Time that responsibility for the sector, battle position, or zone is effective.
- Fire support plan.
- OPSEC considerations.
- Deception plans.
- Time, method, and sequence of relief.
- Routes and critical control measures.
- Concept of subsequent mission.
- Plans for additional positions and changes to present concept.

- Contingency plans.
- Location and transfer of responsibility for obstacles.
- Transfer of ammunition; wire lines; petroleum, oils, and lubricants (POL); and materiel.

If either unit gains direct fire contact with an enemy force, it immediately notifies the other unit and the higher headquarters directing the relief. If command has not passed, the relieving unit is immediately under operational control of the relieved unit. The relieving unit performs missions as directed by the commander of the unit being relieved. If command has passed, the relieved unit or portion still forward is under operational control of the relieving unit. The presence of collocated command posts facilitates rapid coordination and action if enemy contact is encountered during the relief. Unity of command is imperative.

Section VIII. Linkup

A linkup is a meeting of friendly ground forces. One or both forces may be moving. The forces are normally separated by the enemy. Cavalry can participate in a linkup as part of a larger force or as one of the forces involved. Linkup can occur in the following situations:

- When an advancing force reaches an objective that has been previously seized by an airborne or air assault force.
- When an encircled element breaks out to rejoin friendly forces.
- When converging friendly forces meet.
- During an encirclement of enemy forces.

As part of a stationary force, cavalry can screen or guard. In these missions cavalry may be the first unit to establish contact with the approaching force. As part of a moving force, cavalry performs zone reconnaissance or movement to contact for the main body to facilitate rapid movement. If conducting the linkup on its own as the moving force, the cavalry unit performs the mission as zone reconnaissance or movement to contact (see Figure 8-18). If speed is paramount in making the linkup, certain reconnaissance critical tasks can be deleted. Using air cavalry troops to reconnoiter routes for advancing units also helps increase the tempo of the reconnaissance.

The regiment may be employed as a linkup force when there is a requirement for overwhelming mobility and firepower to break through enemy forces.

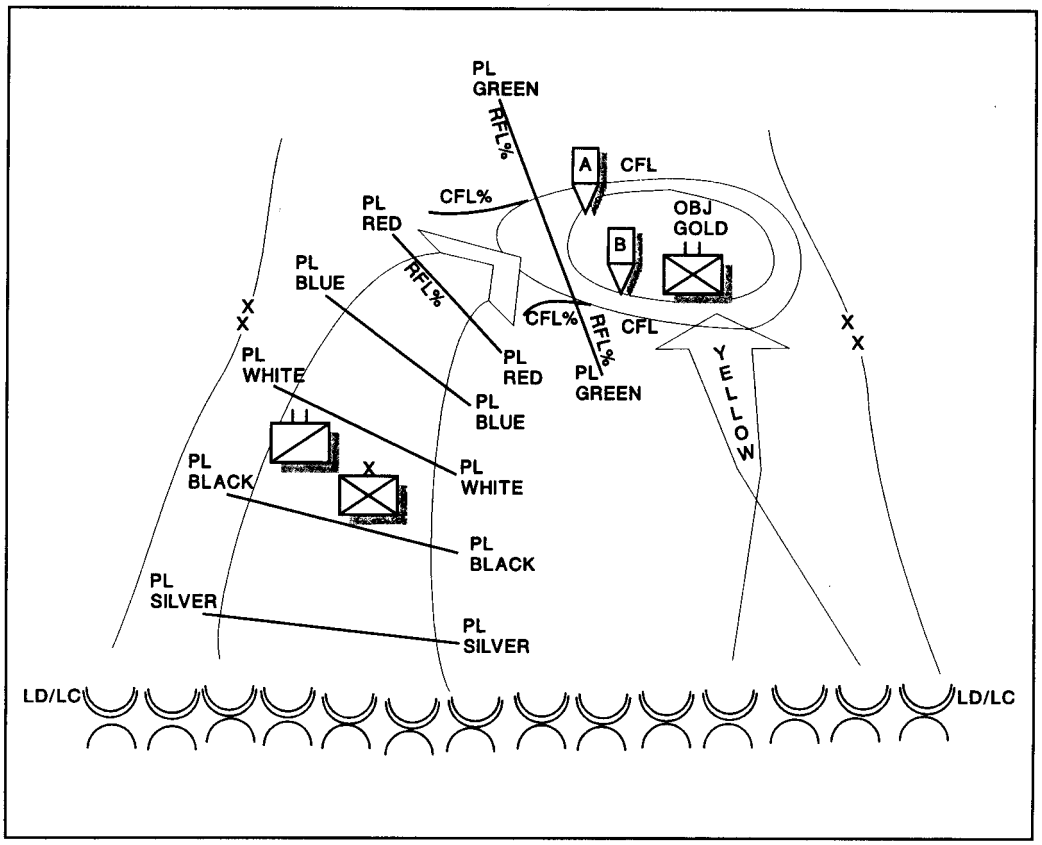


Figure 8-18. Example of a linkup.

The headquarters directing the linkup establishes the command relationship between the forces involved and the responsibilities of each force. Normally both forces remain under the control of the headquarters directing the linkup. If this headquarters cannot adequately control the operation, responsibility is delegated to one of the forces involved. Operational control is the normal command relationship used. Often the moving unit is placed under operational control of the stationary unit, or the unit out of contact is placed under operational control of the unit in contact.

When possible, the commanders of the units involved establish liaison. If the enemy is between the forces conducting a linkup, this liaison may not occur and coordination is then accomplished by radio. The air cavalry troops may be able to perform liaison tasks even when the enemy separates the two forces. During the operation, the two units attempt to maintain continuous radio contact with each other or the higher headquarters. As a minimum, the units exchange the following information:

- Linkup planning.
- Enemy and friendly situations.
- Locations and types of obstacles (existing and reinforcing).

- Fire support plan.
- Air defense control measures.
- Recognition signals.

Communications between the units involved are essential. The headquarters directing the linkup is responsible for ensuring SOI and recognition signals are compatible between the two forces. If the linking units do not have the same SOI, the higher headquarters directs one unit to change, normally the unit not in contact. If the units involved in the operation are not under another unit's operational control, they maintain their parent command nets.

Both units in the linkup coordinate their operation with each other as well as with the directing headquarters. This precludes engaging each other as units close.

Aviation units are helpful in linkup operations. Air cavalry troops can assist in the initial coordination between the forces to be linked up. Air cavalry can assist in route reconnaissance and provide early warning of enemy locations. Aviation can also extend the range of communications. In the armored cavalry regiment, the regimental commander will normally hold the attack helicopter troops in reserve.

Forces plan linkup operations as they would any other operation, with the following additional considerations:

- Restrictive fire lines are used to prohibit fires or effects from fires across the line without coordination with the affected force. They are established by the headquarters directing the linkup or the headquarters with operational control. Restrictive fire lines should not overly restrict the fires of either force. One method is to make phase lines for the moving force on-order restrictive fire lines. As they are crossed, the next phase line becomes the restrictive fire line.
- Linkup points designate where the forces meet. They must be easily recognizable on the ground. When one force is stationary, linkup points normally are established where the moving force's routes of advance intersect the stationary force's security elements. Linkup points for two moving forces are established at points where the two forces are expected to converge. Alternate linkup points are established since enemy action may preclude linkup at the primary points.
- During linkup operations involving aviation units, air defense rules of engagement become extremely important. The higher headquarters directing the linkup and the A2C2 element of the forces involved must ensure timely coordination to prevent engagement of friendly aircraft.
- Actions following the linkup are coordinated. Subsequent operations should be coordinated before the linkup operation and modified, if necessary, when the linkup occurs. The two commanders should collocate near the linkup point, or at a prearranged location. to confirm or coordinate their subsequent operations.

Section IX. Breakout From Encirclement

A breakout is an offensive operation conducted by an encircled force. Encirclement occurs when a unit loses freedom of maneuver resulting from enemy control of all ground routes of evacuation and reinforcement. It does not imply that the unit is surrounded by enemy forces in strength. Threat doctrine stresses bypassing forces that cannot be quickly reduced. An enemy force may be able to influence the unit's subsequent operations while occupying only scattered positions and may not be aware of the unit's location or strength. The encircled unit can take advantage of this by attacking to break out before the enemy is able to exploit the situation.

To breakout successfully, the unit must perform the following actions:

- Deceive the enemy as to friendly composition, strength, and intentions.
- Conduct reconnaissance.
- Concentrate sufficient combat power at an enemy weak point.
- Provide security to the flanks and rear during movement out of the encircled area.

Cavalry units can participate in a breakout as part of a larger force or by themselves. As part of a larger force, cavalry can perform reconnaissance or security missions for the main body.

PLANNING CONSIDERATIONS

Time of Attack

Time cannot be wasted in developing a plan or preparing. Attacking at night or during other conditions of limited visibility is advantageous. However, if waiting for limited visibility risks the destruction of the unit, the attack is executed as soon as possible.

Location of Attack

The unit attacks the enemy's weakest point in the direction of other friendly forces. Against scattered resistance, it attacks through gaps between enemy units. If the enemy is more concentrated, a penetration may be necessary.

Speed of Execution

Successful breakout operations depend largely on speed of execution. Once the penetration is achieved, elements move rapidly, maintaining the momentum of the attack to linkup with friendly units.

Security

As soon as the commander determines that his unit has been encircled, he moves combat support, combat trains, and the command post toward the center of the area to ensure their survival. Additionally, he may have to redeploy some of the maneuver units to provide all-around security. Since the encircled unit concentrates the bulk of its forces to break through enemy resistance, its rear and flanks are vulnerable. A rear guard is organized to protect those areas. A feint may deceive the enemy as to the intentions of the unit.

Evacuation of Casualties

Wounded soldiers are not left behind. Evacuation of severely wounded may be completed by air once the breakout is completed. Less severely wounded soldiers can be evacuated on unit vehicles. Soldiers killed in action are also evacuated on unit vehicles.

Destruction of Equipment and Supplies

Equipment and supplies should be carried out of the encircled area. Some usable equipment and supplies may be abandoned to execute breakout operations quickly. This materiel must be destroyed or disabled.

Combat Support

All available fires are used to support movement. Preparatory fires are normally not fired to retain surprise.

Air Cavalry

Aircraft are extremely vulnerable if they remain with the encircled force. The commander considers displacing them to friendly unit locations as an encirclement appears imminent. During movement, the air cavalry performs reconnaissance to assist the encircled unit in determining the breakout point. They can subsequently perform reconnaissance or security for the force attempting the linkup. If the encircled elements contain a FARP or encompass a large area, critical aviation assets may remain.

ORGANIZATION FOR BREAKOUT OPERATIONS

Regardless of previous command relationships, all elements encircled become attached to the senior tactical commander. The composite task force is then organized into five distinct tactical groups:

- Rupture force.
- Reserve force.

- Main body.
- Rear guard.
- Diversionary/Supporting force (if required).

If possible, the task organization of the force complements both the breakout and subsequent attack or linkup (see Figure 8-19). If a squadron is part of a larger force conducting a breakout it can serve as one of these elements. The reserve force and rear guard are roles a squadron is most suited to perform. The regimental commander assigns squadrons the missions of rupture, reserve, and rear guard forces.

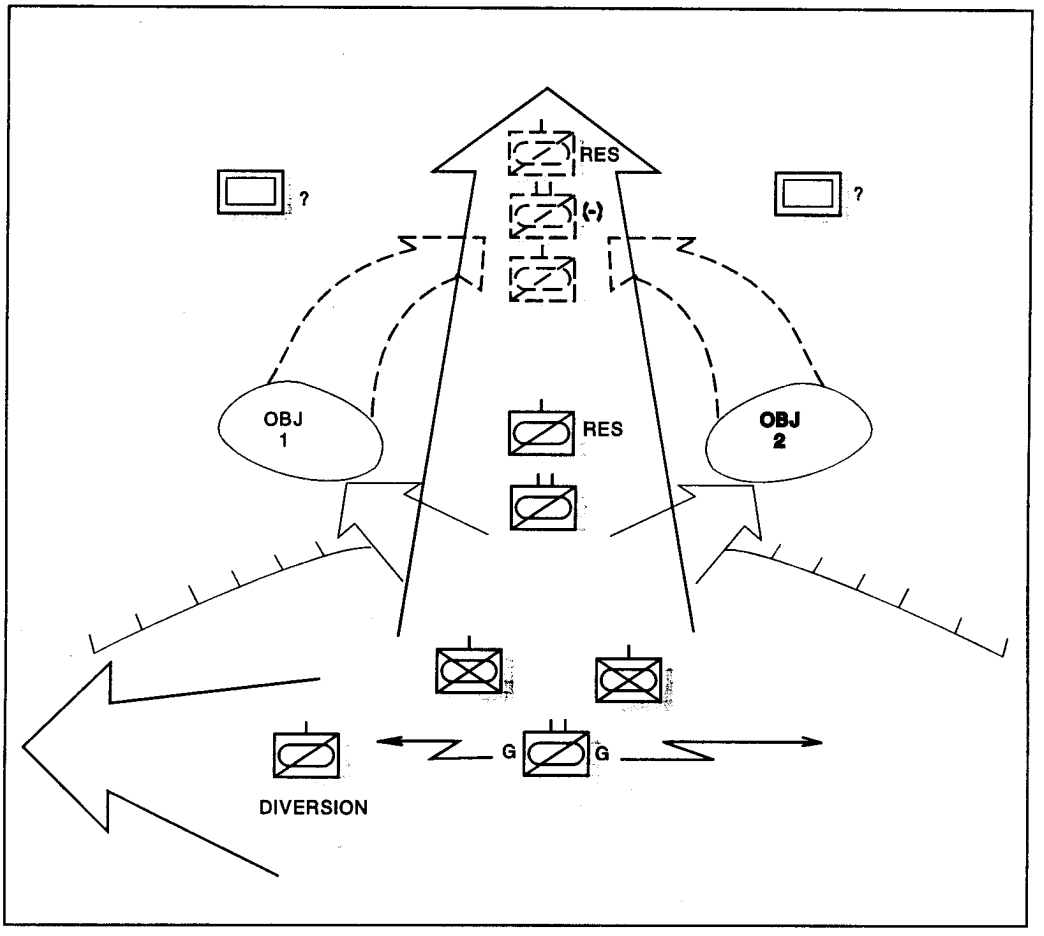


Figure 8-19. Breakout.

Rupture Force

A rupture force penetrates enemy positions and opens a gap for the remainder of the force. Once it has opened a gap, it holds the shoulders until the main body has passed through. Then it either joins the rear guard or becomes the rear guard, depending on the situation. The rupture force should be organized with the necessary combat power to accomplish the initial rupture of the enemy forces.

Reserve Force

A reserve force follows and assists the rupture force. The reserve force normally passes through the rupture force, maintaining the momentum of the breakout operation. In determining the composition of the reserve force, the commander decides how much combat power is needed to make the penetration and how much is required to maintain momentum once the operation has started. Once the reserve passes through the rupture force, it usually leads the force in a subsequent movement to contact.

Main Body

The main body consists of the main command post, combat support, and combat service support elements. Combat support elements are task-organized to support the attack. Combat service support elements move as a single group within the main body. Positive command and control of this element by the S4 or other designated leader precludes unnecessary delay in the movement.

Rear Guard

A rear guard protects the rear of the force as it moves out of the encircled area. The rear guard must be strong enough to delay or disrupt an enemy attack. For a squadron it is normally a troop reinforced as necessary. The rear guard delays during the rupture, follows the main body through the gap, and is joined by the rupture force if so specified. If the rupture force becomes the rear guard, the rear guard can assume another mission, such as flank security.

Diversionary Force

A diversionary force deceives the enemy as to the location of the rupture point by conducting a show of force elsewhere. The diversionary attack should be as mobile as available vehicles and trafficability allow. A cavalry squadron is well suited for the role of diversionary force. The diversionary attack should be directed at a point where the enemy might expect a breakout attempt.

Success of the diversionary force is critical to the success of the breakout. If the diversionary force fails to deceive the enemy as to the location of the main effort, the enemy can focus his combat power on the rupture point. This could lead to the failure of the entire breakout operation. To aid in achieving deception, the commander may elect to use the following measures:

- Smoke-producing assets to deceive the enemy as to the size of the diversionary force.
- Increased radio traffic.
- Available fire support to indicate a false rupture point.
- Maximum mobility and firepower of the diversionary force to deceive the enemy as to its size and strength.

The diversionary force may achieve a rupture of enemy lines. If a rupture occurs, the diversionary force commander must know the intent of the main body commander. The main body commander may exploit this success, or the diversionary force might disengage to follow the reserve force through the planned rupture point.

Since the force will be required to fight in numerous directions during the breakout, control of subordinate elements must be clearly defined. Command of the rupture, reserve, rear guard, and diversionary forces and the combat support and combat service support elements is assigned to maintain the momentum of the attack, even if communications are lost or degraded. The TAC CP is positioned to command and control the rupture operation initially.

Section X. Obstacle Breaching Operations

An obstacle is any physical characteristic of the terrain, natural, man-made, or cultural that impedes the mobility of a force. The effectiveness of an obstacle is enhanced considerably when covered by fire. Obstacles can include abatis, antitank ditches, blown bridges, built-up areas, minefield, rivers, road craters, naturally existing terrain, and wire. They are classified as either existing or reinforcing.

Existing obstacles are any natural or cultural attributes of the terrain that impede a force's movement. Existing obstacles affect ground and some low-level air movement. Existing obstacles are treated as if overmatched when initially encountered until the presence of the enemy is determined.

Reinforcing obstacles are specifically constructed, emplaced, or detonated to tie together, strengthen, and extend existing obstacles. The two categories of reinforcing obstacles are tactical and protective. Tactical obstacles directly attack the ability to maneuver, mass, and reinforce. All tactical obstacles are designed to produce a specific effect such as block, fix, turn, or disrupt.

The threat employs obstacles to slow, disorganize, and canalize the attacker. They may be used alone but are normally covered by preplanned fire concentrations. Existing and reinforcing obstacles are integrated to support the defense. The threat plans obstacles to confine the attacker within fire sacks and to make the employment of the reserve easier. Minefield are laid by an engineer mobile obstacle detachment. Minefield may be used to secure the flanks of a force, or to support a counterattack by the reserve against a penetration.

IPB provides situational templates that indicate known, suspected, and probable locations of obstacles supporting an enemy defense. This information is essential in evaluating the nature of any obstacle encountered during a mission. Effective reinforcing obstacles are often encountered when operating across terrain used in previous operations. IPB may also provide this information.

Obstacle breaching is a combination of tactics and techniques used to project the maneuver forces to the other side of an obstacle. If the mission and situation permit, the first choice of cavalry is to seek a bypass. This is particularly true for large built-up areas that can quickly bog down the unit. Bypassed obstacles are marked and reported for possible later breaching by follow-on engineer units. Bypassing does not relieve responsibility to perform reconnaissance. Cavalry can breach obstacles as necessary or when required to continue the mission.

BREACHING FUNDAMENTALS

The four fundamentals of breaching are suppress, obscure, secure, and reduce (SOSR) as explained below.

- Suppress. Suppression is the focus of all available fires on enemy personnel, weapons, or equipment to prevent effective enemy fires on friendly forces.
- Obscure. Obscuration hampers enemy observation and target acquisition and conceals friendly activities and movement.
- Secure. The force secures the breaching site to prevent the enemy from interfering with reduction of the obstacle and passage of the assault force through the lanes created during the reduction. If the defenders control the breaching site and the force cannot effectively suppress it, then the force must secure the breaching site by occupation before it can reduce the obstacle.
- Reduce. Reduction is the creation of lanes through or over the obstacle that will allow the follow-on attacking force to pass.

BREACHING ORGANIZATION

The commander organizes the force to accomplish SOSR quickly and effectively. This requires him to establish support, breach, and assault forces with the necessary assets to accomplish their missions. These forces are always designated for the deliberate, in-stride, assault, and covert breaches. Usually these forces should be designated for any type mission either in the OPORD or through SOP. Identification of these forces even when obstacles are not expected will aid the force during its transition to breaching operations.

Support Force

The support force's primary purpose is to eliminate the enemy's ability to interfere with the breaching operation. The support force performs the following actions:

- Isolate the battlefield with fires and suppress the enemy force covering the obstacle.
- Mass direct and indirect fires to fix the enemy in position and destroy enemy weapon systems that can influence the breaching force.
- Control the obscuring smoke to prevent enemy observed direct and indirect fires.

Breach Force

The breach force's purpose is to create the lanes that enable the assaulting force and the attacking force to pass through the obstacle and continue the attack. The breach force is a combined arms force that includes engineers, breaching assets, and enough maneuver force to provide local security. The breach force also applies SOSR in the following ways:

- It supplements the suppression of the support force, or engages targets not suppressed by the support force.
- It obscures the breach site with vehicle-mounted smoke or smoke pots.
- It may secure a lodgment on the far side of the obstacle for deployment of the assault force.
- It reduces the obstacle.

Assault Force

The assault force's purpose is to destroy or to dislodge the enemy on the far side of the obstacle. It secures the far side of the obstacle by physical occupation of the terrain. Initially, the assault force may be tasked to assist the support force in suppressing the overmatching enemy. Fire control measures are essential since the breach and support forces will continue to engage the enemy when the assault force is committed. The assault force assumes control for direct fires on the assault objective as the support fires are lifted or shifted. The support force continues to suppress other supporting enemy units not on the assault objective.

DELIBERATE BREACH

The deliberate breach is a scheme of maneuver specifically designed to cross an obstacle to continue the mission. A unit conducts a deliberate breach when the force ratios for support, breach, and assault forces are beyond the capability of a subordinate unit. The deliberate breach is characterized by thorough reconnaissance,

detailed planning, extensive preparation, and explicit rehearsal. One or more subordinate units are tasked to perform the role of support, breach, or assault forces. The deliberate breach is centrally planned and executed.

Units will normally conduct deliberate breaching operations under the following circumstances:

- The unit fails an attempted in-stride breach of enemy tactical obstacles.
- Force ratios indicate that a confirmed enemy situation is beyond the capability of subordinate unit.

A deliberate breach requires detailed reconnaissance, detailed rehearsals, and overwhelming suppression of the enemy's overmatching direct fire weapon systems before the obstacle can be reduced. The breach force is task organized with the bulk of mobility assets and is tailored to counter a specific type of obstacle. Direct and indirect fire systems are massed in the support force to provide the necessary suppression. The required forces are massed into the assault force to seize the initial foothold on the objective. The synchronized actions of the support, assault, and breach forces must be meticulously planned in the scheme of maneuver to achieve synergism at the breach.

Cavalry troops, squadrons, and regiments can conduct a deliberate breaching operation. Normally, a troop executes a deliberate breach because the commander must halt the unit's momentum to maneuver his platoons as support, breach, and assault forces. The regiment is the highest level that conducts a deliberate breach.

The following is an example of a divisional cavalry squadron conducting a deliberate breach during a moving flank guard. The squadron is tasked to cross the line of departure separately from the main body. IPB has indicated the presence of obstacles along the line of contact, so the squadron conducts a deliberate breach as an implied task. An air cavalry troop reconnoiters the flanks and rear of the obstacle and suspected enemy position and begins the reconnaissance of the security zone. A cavalry troop, designated as the support force, is positioned to overwatch the obstacle and to suppress the enemy position. A second troop as the breach force, task organized with engineers and breaching assets, maneuvers to the breach, reduces the obstacle, creates lanes, and secures the far side of the obstacle for the assault force. A third cavalry troop, organized as the assault force, moves rapidly through the lanes and assaults the enemy position. The second air troop may be used as the squadron reserve or could begin screening the flank of the security zone. The support force is responsible for using indirect fires to suppress the enemy and to provide obscuration at the breach site. Once the assault force has destroyed the enemy position and the breach site is secure, the squadron continues with the moving flank guard mission. The support force troop moves through the breach and begins the three-fold mission. The breach and assault forces, after quickly reorganizing and consolidating, move to accomplish their respective missions.

IN-STRIDE BREACH

The in-stride breach is a special type of breaching operation used to quickly overcome unexpected or lightly defended tactical obstacles. An in-stride breach of an obstacle or enemy obstacles is conducted to maintain the momentum of an attack by attempting to breach obstacles as they are encountered in stride. The breach is made without pausing to make elaborate preparations. It can be conducted by a unit of any size, normally by combat elements. In-stride breaches are characterized by speed, surprise, minimum loss of momentum, and minimum concentration of forces.

Regimental or squadron commanders plan and prepare their force for in-stride breaches by task organizing their subordinate units with the forces necessary to conduct independent breaching operations. The actual breach is usually conducted at the troop level. The troop commander designates the specific support, breach, and assault forces based on his task organization. The troop commander is responsible for synchronizing the SOSR through his own detailed breach planning or well-rehearsed breach drills. In-stride breach planning therefore focuses on allocating sufficient assets to the subordinate squadron or troop commanders. This tactic allows the squadron commander to seize and maintain the initiative through simple, decentralized, independent breaching operations under the responsive command and control of troop commanders.

Squadrons prepare as part of SOP to conduct in-stride breaches of obstacles encountered during missions. The SOP emphasizes decentralized breaching or crossing at the lowest unit level possible at each obstacle encountered. Breaching or crossing existing obstacles that are not part of enemy obstacle systems is considered routine and forms part of the standard drills or techniques used by troops and platoons.

IPB products identify existing and reinforcing obstacles. Squadron and troop commanders use this information while developing their plans to integrate obstacle breaching or crossing into the plan. Task organization decisions are made concerning the best use of attached engineer assets. Integrated planning ensures rapid execution without inordinate delay at the obstacle. The regimental commander influences the breaching ability of squadrons by task organizing regimental assets. The commander planning the breach must consider missions for his forces that allow quick transition to a deliberate breach should attempts at in-stride breaching fail.

ASSAULT BREACH

The assault breach allows a force to penetrate an enemy's close-in protective obstacles to assault and destroy the defender in detail. It is normally conducted by armor and infantry conducting a deliberate attack. Cavalry units may conduct an assault breach when conducting missions as an economy of force. It differs from the in-stride and deliberate breaches in that it is conducted by troops and platoons assigned the mission of assaulting an objective as part of the larger force's attack. It provides the force with the mobility it needs to gain a foothold into an enemy

defense and to exploit success by continuing the attack (see Figure 8-20). The nature of the assault phase requires a different application of the SOSR breaching fundamentals than that used during the in-stride and deliberate breaches. The squadron commander still provides the breaching unit with the assets it needs to accomplish the mission. However, he also provides his own support force to assist in the suppression of the enemy on the assaulting unit's objective. The troop executing the assault breach still organizes his platoons into support, assault, and breach forces. The troop commander or platoon leader plans, prepares, and executes the assault breach under the circumstances that follow.

- Enemy has had time to prepare protective obstacles around or within his positions.
- Troop or platoon has been assigned the mission to assault the enemy's defense as part of a larger force's actions on the objective.

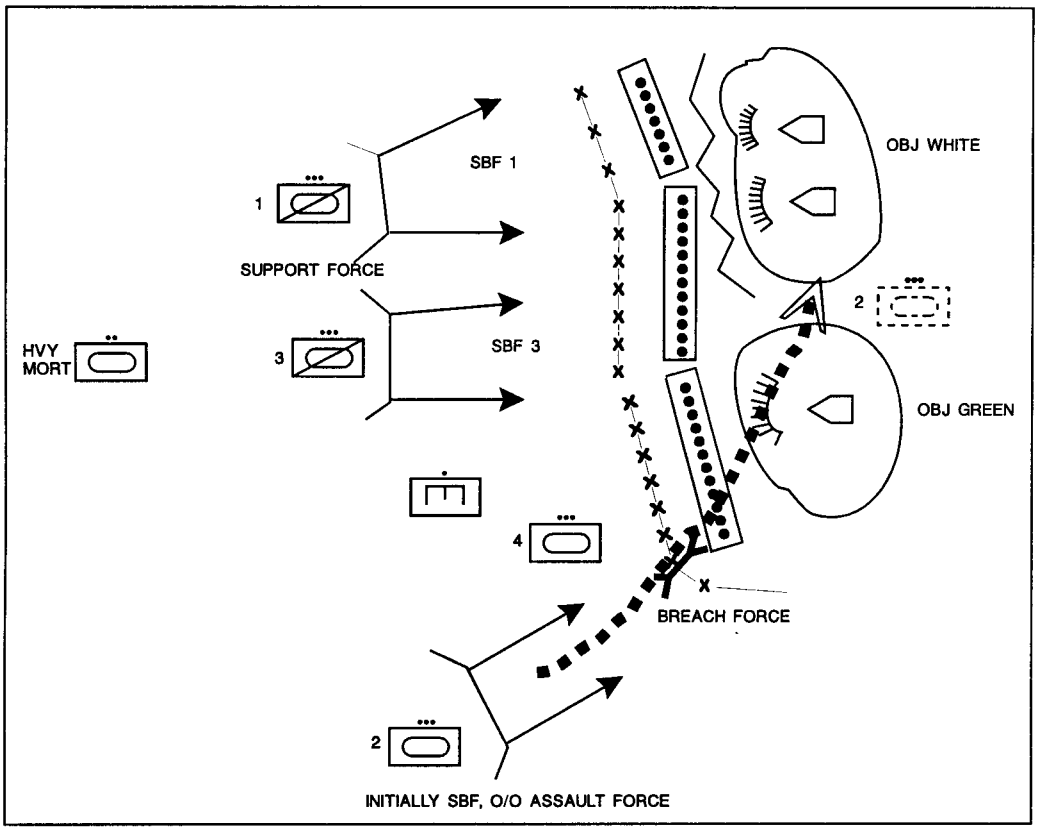


Figure 8-20. Assault breach.

COVERT BREACH

The covert breach is a special breaching operation conducted by dismounted forces (scouts and engineers, or infantry if the unit has been augmented with infantry) during limited visibility. The breach is silently executed to achieve surprise and to minimize casualties. It relies on stealth, quiet lane reduction techniques, and dismounted maneuver. Due to the lack of dismounted capability in cavalry units, commanders must weigh the need for surprise versus overwhelming suppression.

The commander may choose to execute a covert breach when—

- Stealthy reconnaissance is key to infiltrating through enemy tactical obstacles and forward defenses.
- Surprise is essential for breaching enemy protective obstacles and assaulting enemy positions.
- Surprise is essential for breaching enemy tactical obstacles for a follow-on mounted attack.
- Limited visibility and terrain present the opportunity to silently reduce the obstacle.
- Overwhelming combat power is not required to support the breach for an assault.

The main difference between the covert breach and other breaching operations is the execution of the SOSR breaching fundamentals. Suppression is planned but remains on call or until the assault begins. Obscuration is planned but remains on call; it may be used if it enhances limited visibility without causing undue enemy attention to be focused at the breaching site. Security is provided by the security team of the breach force; it provides early warning and covers the withdrawal of the reduction team if discovered. The obstacle is reduced by a reduction team using silent techniques, such as—

- Marking mines.
- Cutting wire.
- Reshaping an antitank ditch with shovels.
- Setting explosive charges and waiting for a signal or trigger to detonate them.

FM 90-13-1 outlines the doctrine for combined arms breaching operations and covers all four types of breaches in explicit detail.

HASTY WATER CROSSING

A hasty water crossing is the crossing of any inland body of water to include rivers, canals, or lakes. The commander develops his concept to ensure that combat support and combat service support assets are on hand and ready to support as the troop approaches the water obstacle. Air cavalry troops and ground teams are ideal to expedite a water crossing because of the terrain independent movement capability of aircraft. Planning ensures that aircraft are available as the ground unit approaches the obstacle.

The first choice of the commander is to seize bridges intact before the enemy can destroy them. This is the quickest and most economical means of crossing, and is used whenever possible. Crossings may also be made by tactical bridging, fording, or swimming.

Reconnaissance

Air or ground scouts normally encounter the obstacle first. They immediately begin reconnaissance to determine the following:

- The width and depth of the waterway.
- Water velocity.
- Possible entry and exit points and their conditions.
- The enemy situation on the far bank. This task is well suited to the air cavalry portion of the team.

Security

Security is established before the troop or squadron begins crossing in force.

- Far bank security by air and ground scouts to provide early warning and to secure the site from enemy observation.
- Local security at the crossing site.
- Overwatch positioned on the near bank as reconnaissance begins.
- Mortars and artillery positioned to provide suppressive and screening fires.
- Commander and fire support officer positioned forward.
- Waiting units dispersed during reconnaissance and the crossing.

Crossing

Upon completion of reconnaissance and establishment of security, the troop begins the crossing. Crossing sites selected must accommodate the least capable vehicles in the troop or the commander runs the risk of separated forces. Scouts may be able to cross by swimming, but will need to reconnoiter for ford or bridging sites for tanks and combat trains. If an armored vehicle launched bridge (AVLB) is available, it is positioned well forward in a hide position, but does not come forward until the scouts have selected the bridging site. The troop does not delay at the crossing site to improve it for other squadron assets. Site capability is reported to the squadron for the commander's decision for continued use or engineer improvement. As the crossing begins, the troop commander staggers movement of subordinate units to preclude bunching up at the crossing site.

Fire Support

Fire support is required to suppress known or suspected enemy overmatching the water obstacle. Mortars are positioned to provide support as the reconnaissance of the obstacle begins. The regimental squadron commander positions the howitzer battery to provide effective fires for the troop or troops facing the obstacle. The fire support officer is positioned to observe the crossing site and to manage the fire support effort. Smoke is planned to screen the crossing, but used only if necessary.

Follow-on Forces

The troop normally is not required to improve a crossing site for follow-on forces of the squadron or main body. Crossing sites that may be used by other forces are marked by the troop. The squadron commander is responsible for crossing site improvement and normally uses attached engineers. The size of the water obstacle and the significance of any particular crossing site to the division or corps commander determines where he places his effort. The squadron commander improves the site only for assault traffic. The regimental commander may elect to improve the crossing site further with his organic engineer assets, depending on the importance of the site to the corps. Engineers moving with the main body are responsible for developing crossing sites for sustained high-volume traffic. Military police assist the forward movement of follow-on forces.

Section XI. Nuclear, Biological, and Chemical Defense

NBC defense is the methods, plans, procedures, and training required to establish defense measures against the effects of an attack by NBC weapons. NBC defense operations are performed to reduce casualties and damage to equipment, and to minimize disruption of the mission. These measures are continuous in nature and integrated throughout all combat operations. They are largely suitable for adaptation into SOP. Three fundamentals guide NBC defense:

- Contamination avoidance (before, during, and after an attack).
- Protection (before, during, and after an attack).
- Decontamination (after an attack).

Avoidance is the most important fundamental of NBC defense. To survive and accomplish the mission, individuals and units must take precautions to avoid or minimize effects of initial and residual NBC hazards. There are four steps to contamination avoidance: passive defense measures, warn and report NBC attacks, locate and identify NBC hazards, and limit exposure to NBC hazards. FM 3-3 discusses chemical and biological contamination avoidance, and FM 3-3-1 discusses nuclear contamination avoidance in detail.

Protection is required when contamination cannot be avoided. Protection is closely linked to avoidance and the techniques of both overlap. There are two types of hazards: immediate and residual. Immediate hazards produce casualties immediately after the attack and are the primary concern. Residual hazards are those that produce casualties over an extended period or have delayed effects. Protection is divided into two broad areas: individual and collective. Individual protection is the measures each soldier takes to survive and continue the mission. Collective protection provides a contamination-free working environment for selected personnel, and allows soldiers relief from continuous wear of MOPP gear. Collective protection is most commonly found in cavalry units in combat vehicle overpressure systems. FM 3-4 discusses NBC protection in detail.

Decontamination is the process of making a person, object, or area safe by absorbing, destroying, neutralizing, making harmless, or by removing chemical or biological agents or radioactive material clinging to or around it. Decontamination stops the erosion of combat power and helps the unit avoid casualties. The three types of decontamination are immediate, operational, and thorough.

Training NBC defense is essential. It must be realistic, reinforced continually, and integrated into every unit exercise. The stress and fear of contaminated environments must be recognized and controlled. Individual endurance, protection discipline, teamwork, and SOP must be developed and reinforced.

RESPONSIBILITIES

All soldiers must understand the concepts of NBC defense and the skills necessary to survive an attack. Individual soldiers must be able to survive in order for the unit to survive and continue operations. Individuals are responsible for—

- Recognizing hazards and taking cover.
- Using protective measures and MOPP gear.
- Knowing avoidance measures, first aid, and decontamination.

Squadron and troop commanders, assisted by NBC defense specialists, assess unit status, integrate NBC considerations in planning, and designate and train special purpose teams. These special purpose NBC teams include the following:

- Chemical agent detection teams.
- Radiological survey and monitoring teams.
- Decontamination teams.

BEFORE THE ATTACK

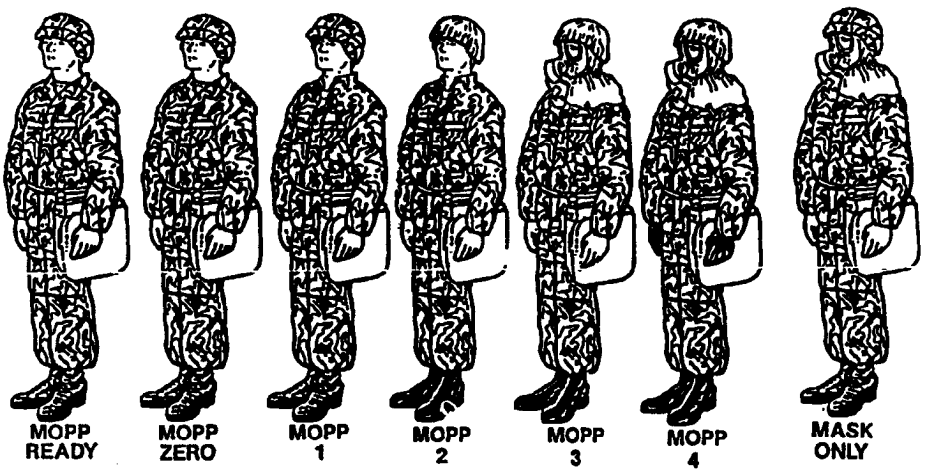
The best defense is to avoid becoming a lucrative target. If contamination cannot be avoided, then its effects must be reduced. Passive avoidance measures are not a direct reaction to enemy NBC attack. These measures listed below are already considered in the course of other operations, but contribute to NBC attack avoidance.

- Dispersion.
- Concealment.
- Camouflage.
- Detection and bypass of contaminated areas.
- Communications security.
- Operations security.

Leaders and NBC personnel conduct vulnerability analysis to determine the risk of attack then incorporate appropriate protective measures. Protective measures must

not unnecessarily degrade the effectiveness of the squadron. Protective measures are also used when contamination cannot be avoided. These protective measures include the following:

- Position improvement.
- Assuming higher MOPP levels (see Figure 8-21).
- Using collective protection systems.
- Protecting equipment and supplies.
- Positioning alarms.
- Alerting unit NBC teams.



MOPP Equipment	MOPP Levels						Command
	MOPP READY	MOPP ZERO	MOPP 1	MOPP 2	MOPP 3	MOPP 4	MASK ONLY
Mask	Carried	Carried	Carried	Carried	Worn[1]	Worn	Worn
Overgarment	Ready[3]	Available[4]	Worn[1]	Worn[1]	Worn[1]	Worn	
Vinyl overboot	Ready[3]	Available[4]	Available[4]	Worn	Worn	Worn	
Gloves	Ready[3]	Available[4]	Available[4]	Available[4]	Available[4]	Worn	
Helmet Protective Cover	Ready[3]	Available[4]	Available[4]	Worn	Worn	Worn	
Chemical Protective Undergarment[2]	Ready[3]	Available[4]	Worn[2]	Worn[2]	Worn[2]	Worn[2]	

[1]In hot weather coat or hood can be left open for ventilation.

[2]The CPU is worn under the BDU (primarily applies to SOF personnel and armor vehicle crewmen).

[3]Must be available to the soldier within two hours. Second set available in 6 hours.

[4]Within arm's reach of soldier.

Figure 8-21. Mission-oriented protective posture.

Protective measures against biological weapons are the most difficult to take. These measures include the following:

- Complete immunizations prior to conflict.
- Proper personal hygiene on a continuous basis.
- Proper field sanitation.
- Proper preparation of foods.
- Avoiding unapproved local foodstuffs and water sources.
- Good physical conditioning.

DURING THE ATTACK

The attack can take several forms. These include direct attack, downwind hazard from attack elsewhere, entering a minefield with chemical mines, or inadvertently entering a contaminated area. Individual soldiers react immediately to protect themselves against contamination or initial nuclear effects. Before chemical weapons usage is confirmed, soldiers will don the mask only when there is a high probability of a chemical attack. High probability chemical attack indicators are as follows:

- Chemical alarms sounding.
- Positive reading on chemical agent detector paper or on chemical agent monitor.
- Soldiers experiencing symptoms of chemical agent poisoning.
- Visual or vocal alarms indicating attack.

Upon initiation of chemical warfare, commanders must decide whether their personnel should automatically mask upon other possible indicators of chemical use. These indicators include enemy artillery or rocket attacks and smoke operations.

If intelligence sources identify possible enemy biological agent use, including toxins, the commander may again institute automatic masking. Troops automatically mask for conditions that may signal biological attack such as smoke, spray, mist, presence of dead animals or insect vectors. Since some toxins will attack the skin, protective clothing should be worn.

Commanders establish and continually assess the automatic masking policy as the situation and mission change. Individual reaction is the first step of unit response. Additional reactions are also standardized in SOP and include the following:

- Sound alarms.
- Assume MOPP 4 as soon as possible.
- Treat casualties.
- Send reports.
- Identify the agent.
- Initiate decontamination.

The mission must continue, even though degraded. The enemy often employs chemicals to disrupt the defense as part of an attack. The troop or squadron cannot become so involved in responding to the attack that it stops the mission underway. Training, SOP, and discipline are the foundation of continued combat effectiveness.

AFTER THE ATTACK

Following the attack or inadvertent exposure, actions initiated during the attack continue. The alarm is passed throughout the squadron with emphasis on units downwind of the attack. Other squadrons react as necessary. NBC-1 reports are prepared and sent. Additional information is sent as updates to avoid delay in the initial report. Perform first aid (self aid, buddy aid, or combat lifesaver). Agent identification is initiated to determine decontamination requirements and to allow unmasking as soon as possible.

Decontamination proceeds as soon as the situation allows (see Figure 8-22). Immediate decontamination is the immediate neutralization or removal of contamination from exposed portions of the skin and critical equipment surfaces. Soldiers perform this decontamination without supervision, using individual equipment and vehicle decontamination apparatus. Operational decontamination is the actions of teams or squads within the squadron to reduce the spread of contamination on people or equipment and possibly allow temporary relief from MOPP 4. Operational decontamination occurs as far forward as the situation allows. Thorough decontamination operations decontaminate clothing and equipment so soldiers can perform their mission with individual and respiratory protection removed. Thorough decontamination takes detailed planning and outside assistance. In the armored cavalry regiment, that assistance is provided by the regimental chemical company, which normally operates a centralized decontamination site. The division cavalry relies on support from the division chemical company.

LEVEL	BEST START TIME	DONE BY	TECHNIQUE	GAINS MADE
IMMEDIATE	BEFORE 1 MINUTE	INDIVIDUAL	SKIN DECON	STOPS AGENT FROM PENETRATING
	WITHIN 15 MINUTES	INDIVIDUAL OR CREW	PERSONAL WIPEDOWN	
			OPERATOR SPRAYDOWN	
OPERATIONAL	WITHIN 6 HOURS	UNIT	MOPP-GEAR EXCHANGE	POSSIBLE TEMPORARY RELIEF FROM MOPP4, LIMIT LIQUID AGENT SPREAD
		SQDN CREW OR DECON SQUAD	VEHICLE WASHDOWN	
THOROUGH	WHEN MISSION ALLOWS RECONSTITUTION	UNIT	DETAILED TROOP DECON	PROBABLE LONG-TERM MOPP REDUCTION WITH MINIMUM RISKS
		DIV/REGT DECON PLT	DETAILED EQUIPMENT DECON	

Figure 8-22. Decontamination techniques.

Operating in a nuclear environment requires continuous or periodic monitoring as necessary. A reconnaissance mission may be assigned for the purpose of conducting a radiological survey. Radiological survey information is forwarded as an NBC-4 report. Exposure must be closely monitored and reported. Radiation exposure is determined by the cumulative dose or radiation history of the unit maintained by platoon or section on a radiation exposure guide. Excessive exposure of units may force commanders to move or relieve units. Acceptable levels of exposure are determined for the operation and expressed as degrees of exposure risk—negligible, moderate, and emergency. Fallout decontamination is accomplished by brushing or wiping the contaminated dust off clothing and equipment. Do not use masks to protect against fallout particles; use a damp cloth held over the nose and mouth. This method is generally preferable to masking to avoid trapping contamination in the mask filter.

When the squadron receives a strike warning (STRIKWARN) message, actions are initiated to minimize the effects of the friendly strike. These actions are established in SOP (and common task manuals) and the warning must be disseminated to every element of the squadron. Each crew prepares its vehicle or position for the attack.

Section XII. Independent Troop Operations

Although the division cavalry squadron is normally employed as a whole, there are exceptional situations when the squadron best accomplishes the mission by employing subordinate troops independently. These situations occur predominantly during rear and contingency operations.

The variety of missions being performed during rear operations lend themselves frequently to performance by troops. If the squadron is covering dispersed areas in the rear as the tactical combat force, ground troops may operate out of their own assembly areas in their specified area of operations. Air cavalry troops may be best suited to reestablish contact with a brigade command post or commander, especially when time is critical. Facilitating the movement of forces through the rear area may require only the support of a troop. If movement is to include support of a subsequent operation, then this becomes a squadron mission. Area damage control likewise can be performed by the ground troop in the area or initially by an air cavalry troop for rapid assessment. When troops are operating independently, they still perform missions according to the principles outlined in Chapters 3 through 6 of this manual. Command and control is still exercised by the squadron and service support is provided to the troops.

When elements of the squadron are task organized with brigade task forces during contingency operations, scout platoons, ground troops, or air cavalry troops may find themselves operating independently of the squadron. They are attached to the brigade and receive missions and service support from the brigade. If the operation is of long duration, the troop is the lowest level that can sustain operations.

Special cases that dictate a temporary detachment of a troop may arise during the conduct of other operations. A ground troop can be placed under operational control or attached to a ground maneuver brigade if the squadron encounters the conditions below.

- Becomes overextended.
- Conducts a staggered battle handover.
- Finds itself facing multiple threats across a broad front.

The air cavalry troop can—

- Be placed under the operational control of an air assault task force,
- Conduct deep reconnaissance for the division, or
- Be placed under the operational control of an attack helicopter battalion for a critical mission.
- Conduct NBC aerial survey.

When supporting an attack helicopter battalion, the air cavalry troop is not used as a substitute for attack helicopter company aeroscouts.

As the exception to the normal employment of the squadron, these independent operations are considered of short duration when performed. These missions are often performed by a troop under squadron control when the commander considers that to be sufficient force. A ground troop may be placed under operational control or attached to another headquarters, but an air cavalry troop is normally only under its operational control. The duration of an independent air cavalry troop operation is normally one to two fuel loads. The squadron commander assesses the degradation to his overall combat power when a troop is detached and he must perform another mission. The division must be appraised of this degradation when directing detachment of a troop.

Section XIII. Contingency Operations

Contingency operations are military actions requiring rapid deployment to perform military tasks in support of national policy. The size of a contingency force, its mission, and its areas of operations vary. These operations provide a show of force in support of a threatened ally to deter aggression, react to the invasion of a friendly government, protect the property of US nationals, rescue hostages, and perform other tasks as directed. Contingency operations normally take place in locations where there are no forward deployed forces capable of immediate reaction. The task organization of the force is threat based. Light forces are quickest and easiest to deploy, but heavy forces may be required to face a mechanized threat or operate over extended distances. These operations are normally joint operations and command and control rests with a joint task force. The light cavalry squadron participates in a contingency operation as part of the division or a brigade task force. Armored cavalry participates when its forces are required to fight a mechanized enemy.

DEPLOYMENT

The unique aspect of a contingency operation is deployment (see Figure 8-23). The division generally organizes brigade-size task forces and deploys by echelon in three phases. The organization of the task forces reflects requirements to meet the contingency. The echelons of the division are assault, follow-on, and rear. The three phases of the operation are deployment, lodgment, and expansion. In a corps level operation, a division may be considered an echelon itself and be introduced during one of the phases of the operation. Cavalry squadrons (regiment or division) are normally introduced in at least squadron size during the lodgment or expansion phase.

PHASE	ECHELON	ACTIVITY	SQUADRON ROLE
Deployment	Assault	Seize/establish lodgment at selected airhead/beachhead; Secure for follow-on forces	Reconnaissance/security beyond lodgment
Lodgment	Follow-on	Follow-on forces arrive; Lodgment expanded; Combat power buildup	Reconnaissance/security beyond lodgment; Support combat operations
Expansion	Rear	Combat power buildup; Logistics base buildup; Expanded combat operations	Reconnaissance/security; Support combat operations

Figure 8-23. Contingency operations.

SQUADRON TASK ORGANIZATION

The squadron is normally task organized with the brigades and deploys by echelon. Requirements for reconnaissance and security forces dictate the manner in which the squadron deploys. A ground troop may be task organized by platoon with the brigades. If the operation involves only a single brigade, the entire troop should deploy. Air cavalry troops are best deployed as a troop because of their size. Aircraft maintenance requirements are considered when deploying an air troop early. The AVUM troop may be required to deploy with the troop, or aviation maintenance is provided by other deploying assets of the aviation brigade. When the squadron command and control structure arrives in the contingency area, the squadron commander assumes control of his already deployed forces and conducts operations as a squadron. If the contingency operation involves extended operations, large areas, major movements, and the potential of facing a mechanized enemy, then the entire squadron should be committed as part of the contingency force.

COMBAT OPERATIONS

Once deployed, combat operations are conducted according to the principles discussed in Chapters 3 through 6. Contingency operations frequently involve fighting irregular forces in a counterinsurgency role.